

2019-2020



CATALOG



DVC

DIABLO VALLEY COLLEGE

DVC

DIABLO VALLEY COLLEGE



Pleasant Hill Campus
San Ramon Campus

2019-2020 CATALOG

Fall 2019 • Spring 2020 • Summer 2020

Seventieth academic year

approved by

The California State Department of Education
The Department of Homeland Security

ACCREDITATION

Institutional

Diablo Valley College is accredited by the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges (ACCJC/WASC), which is an institutional accrediting body recognized by the Council for Higher Education Accreditation and the U.S. Department of Education. The contact information of the AACJC is provided below:

Accrediting Commission for
Community and Junior Colleges
10 Commercial Boulevard, Suite 204
Novato, California 94949
415-506-0234
www.accjc.org

Programmatic

The following Diablo Valley College programs are accredited by programmatic accrediting bodies, which are responsible to determine license/certification eligibility.

Dental Assisting and Dental Hygiene
Commission on Dental Accreditation of
the American Dental
Association
211 East Chicago Avenue
Chicago, Illinois 60611-2678
www.ada.org

California Association for Alcohol/Drug
Educators
5230 Clark Road, Suite 3
Lakewood, California 90712
707-722-2331
www.caade.org

Culinary Arts, Baking and Pastry,
Restaurant Management
The Accrediting Commission of the
American Culinary Federation
Education Foundation
180 Center Place Way
St. Augustine, Florida 32095
www.acfchefs.org

California Consortium of Addiction Programs
and Professionals
PO Box 214127
Sacramento, California 95821
916-338-9460
www.ccapp.us

Contra Costa Community College District Administration

DISTRICT GOVERNING BOARD 2019

Vicki Gordon, President
Andy Li, Vice President
John E. Márquez, Secretary
Rebecca Barrett
Greg Enholm
Jocelyn Villalobos, Student Trustee

DISTRICT CHANCELLOR

Dr. Fred E. Wood

DIABLO VALLEY COLLEGE PRESIDENT

Susan E. Lamb

DVC DIABLO VALLEY COLLEGE

MAILING ADDRESS

Pleasant Hill Campus
321 Golf Club Road
Pleasant Hill, CA 94523
Telephone: 925-685-1230
Fax: 925-685-1551
Website:
www.dvc.edu

San Ramon Campus
1690 Watermill Road
San Ramon, CA 94582
Telephone: 925-866-1822
Fax: 925-242-0856
Website:
www.dvc.edu/sanramon

Notice: The information contained in this catalog describes the anticipated programs, courses, rules, regulations, and fees of Diablo Valley College. These are subject to change at any time. The college disclaims liability for any unintended errors in this publication. This catalog sets forth college policies for all college programs and services in accordance with the California Education Code, California Code of Regulations (Title 5), and District and college policies.



Table of contents

Chapter One - General information	6
General information	7
Course and program offerings	8
Admissions requirements.....	9
Student fees and other financial obligations	10
Student financial aid.....	12
Learning resources and services.....	13
Chapter Two - College policies	14
Nondiscrimination.....	15
Academic requirements and policies.....	16
Student rights and responsibilities.....	33
Grievance and complaint procedures.....	44
General college policies	44
Chapter Three - Transfer, degrees, and certificates	46
Transfer information.....	47
Transfer to CSU.....	47
Intersegmental General Education Transfer Curriculum (IGETC).....	48
Transfer to UC	48
Transfer to independent (private and out-of-state) colleges and universities	49
DVC associate degrees	49
Associate degree requirements for students entering fall 2019	50
Option 1 - DVC general education	52
Option 2 - IGETC - Intersegmental General Education	54
Option 3 - CSU GE- California State University General Education.....	56
DVC career education programs.....	58
DVC certificate programs and associate degrees.....	59
Chapter Four - Program and course descriptions	60
Understanding the course descriptions.....	62
Coursework and study time per unit.....	63
Program length	63
Program and course descriptions.....	64
Chapter Five - Faculty and administrators	387
Faculty and administrators.....	388
Index	396

GENERAL INFORMATION

chapter one

catalog 2019-2020



General information	7
Course and program offerings	8
Admissions requirements	9
Student fees and other financial obligations	10
Student financial aid	12
Learning resources and services	13



GENERAL INFORMATION

Diablo Valley College (DVC) is one of three publicly supported two-year community colleges in the Contra Costa Community College District. The larger of DVC's two campuses is located near Interstate 680 in Pleasant Hill; the San Ramon Campus serves the south county in Dougherty Valley. Between its two campuses, DVC serves more than 20,000 students each term with a wide variety of program options.

Academic freedom statement

The Contra Costa Community College District affirms its belief in the academic freedom of faculty, management, and students to teach, study, conduct research, write and challenge viewpoints without undue restriction.

Members of the college faculty are citizens, members of a learned profession and representatives of an educational institution. When they speak or write as citizens, they should be free from institutional censorship or discipline, but their special position in the community imposes special obligations. As persons of learning with institutional affiliations, they should remember that the public may judge their profession and institution by their statements. Hence, they should at all times be accurate, exercise appropriate restraint, show respect for the opinion of others, and make every effort to indicate that they are not expressing their institution's views.

Mission

We inspire, educate, and empower students to transform their lives and their communities.

We guide students to achieve their goals by awarding degrees and certificates, preparing them for transfer to four-year colleges and universities, facilitating entrance to and advancement in careers, and fostering personal growth.

DVC Institutional learning outcomes

Through their experiences at Diablo Valley College, a student will develop proficiency in the five areas identified in the following list as part of a dynamic educational environment.

- **Communication and Collaboration** - A student with effective communication skills will be a good listener and speaker. They will be able to communicate orally, through writing, and visually using an appropriate medium. A student with collaboration skills will be able to work with teams comprised of a diverse set of people. They will develop leadership skills and the ability to work with groups on the completion of a wide variety of projects. *Includes effective written and visual message construction, media choices, leadership skills, and the ability to work with others on projects.*
- **Empathy Mindset** - A student with an empathy mindset will be able to build relationships through understanding and valuing others with diverse backgrounds and cultures. They will be connected and active in their community and will act in accordance with ethical norms. *Includes social and diversity awareness, civic engagement, and ethics.*

- **Growth Mindset** - A student with a growth mindset is willing to take risks, learn from mistakes, and has a drive to complete tasks. They set goals and priorities for actions and are flexible and able to respond to changes. A person with a growth mindset believes that abilities and intelligence can be developed through practice, training, and effort. *Includes adaptability, resilience, self-awareness, and entrepreneurial mindset.*
- **Information and Technology Fluency** - A student who is information and technology fluent will utilize appropriate technology to locate and critically evaluate information from a variety of sources, to formulate responses to issues, reach informed decisions, and communicate effectively. *Includes being flexible and strategic in the use of technology, as well as the accurate and ethical use of written and visual materials.*
- **Solution Mindset** - A student with a solution mindset will think critically and evaluate information sources for accuracy and usefulness. They will think critically about data and information. They will be able to design and implement appropriate solutions for situations they face. *Includes understanding methods of inquiry and analysis of available choices.*

About this catalog and program requirements

The DVC catalog specifies the requirements to earn a degree or certificate. The requirements in a specific academic year's catalog are the student's contract (catalog rights) with the college and that catalog defines which courses the student must complete to earn a degree or certificate.

The information in this catalog describes the anticipated programs, courses, policies, regulations, and fees of Diablo Valley College. These are subject to change at any time. The college disclaims liability for any unintended errors in this publication.

Please see page 50 for more information on catalog rights and continuous enrollment for degrees and certificates.

Schedule of classes

The schedule of classes is presented in multiple formats. A pdf document containing DVC's class offerings is published online each term prior to registration, and may be available to purchase in limited quantities at the Book Center. There is also an online searchable class schedule, which is updated daily and includes the most recent information.

COURSE AND PROGRAM OFFERINGS

Degree and certificate programs

DVC offers more than 90 associate degrees and more than 80 certificates of achievement, and a broad selection of certificates of accomplishment. Most associate degree programs can be completed in four terms of full-time study (15 units per term). Certificate programs are generally shorter in length. Length of time to completion will vary based on student course-taking patterns. To see the complete list of programs, visit: www.dvc.edu/programs

Day, evening, and summer classes

Classes are taught in the day and evening in full-term and short-term formats. A selection of day and evening classes are also taught during the summer. See the schedule of classes for more information. www.dvc.edu/schedule.

Fully online and partially online classes

An online class in the Contra Costa Community College District is a class offered fully online and has no required face-to-face meetings. In the schedule of classes these courses are listed as **online**. A partially online class in the Contra Costa Community College District is a class that offers instruction both online and on campus. Required in-person class meetings are included in the schedule of classes following a predictable pattern (on the same day(s) of the week and at the same time). In the schedule of classes these classes are listed as **partially online**. To find out more about online classes visit www.dvc.edu/online.

Contract education classes

A contract education class is one that a community college offers under contract pursuant to Education Code section 78021 with a public or private agency, corporation, association, or other organization (title 5, section, 55000). Such classes are not open to general enrollment.

Noncredit courses

A noncredit course is one that is approved by the college and district as meeting the needs of enrolled students but that does not award college credit and is not transcribed. Such courses are limited to the following categories: Parent Education, Basic Skills, English as a Second Language, Immigrant Education, Education Programs for Persons with Substantial Disabilities, Short Term Vocational Programs with High Employment Potential, Education Programs for Older Adults, Family and Consumer Sciences, Health and Safety.

Academic Calendar 2019-20

Please check our website www.dvc.edu/calendar and click on Academic/Calendar 19-20 for the most current dates and a more complete calendar.

FALL TERM 2019	
August 26	First day of instruction
September 2	Labor Day holiday
September 27	Native American Day holiday
November 11	Veterans Day holiday
November 28-29	Thanksgiving holiday
November 30 - December 1	No classes
December 15	Last day of instruction
December 20 - January 1	Winter recess
SPRING TERM 2020	
January 20	Martin Luther King Jr. Day holiday
January 27	First day of instruction
February 14	Lincoln Day holiday
February 15-16	No classes
February 17	Washington Day holiday
March 29 - April 4	Spring recess
May 22	Last day of instruction
May 22	Graduation
May 25	Memorial Day holiday

ADMISSION REQUIREMENTS

There are a number of steps necessary for successful enrollment in classes at DVC. Students are encouraged to complete the matriculation process, which includes admission, assessment, orientation, and advising prior to registering for classes. Please see page 33 for more information about the matriculation policy. For detailed information on how to enroll, please see our website. www.dvc.edu/apply

Admission eligibility

A student is eligible for admission if he or she:

- has graduated from a regionally accredited high school, or
- is 18 years of age or older and is no longer in high school, or
- has passed the State of California Certificate of Proficiency Test (CHSPE) or the General Educational Development Test (GED).

California residence status

California residence status is determined by the Admissions and Records Office. A student is generally eligible for residency if he or she has lived in California for at least one year and one day prior to the beginning of the term in which he or she wishes to enroll, and can show evidence of California residency.

Non-residence status

Non-resident students must pay a non-resident tuition fee in addition to the other usual college fees. Please see page 10 for more information about student fees.



International students

International students interested in applying to DVC can download and print out the application from www.dvc.edu/international. International students are required to comply with immigration regulations and must submit supporting documents for admission purposes.

A checklist to ensure that students understand what they need to submit to be admitted as an international student to DVC is available at www.dvc.edu/isas-checklist. International students must pay the international student rate for courses in addition to the usual college fees. International students must also pay the mandatory insurance cost.

For admissions deadlines and more information please visit: www.dvc.edu/international or contact the International Student Admissions and Services (ISAS) Office.

Transferring to DVC

DVC welcomes transfer students from other colleges. Transfer students should follow the general application procedures listed in the Student Resource Guide. Please see page 18 for more information about transfer credit.

Transcripts

Release of student records

Students may have their DVC records released to them only if they have no outstanding debts (including fees owed for current term) and can show positive picture identification, in the form of a current student ID card, a California Driver's License, or a California ID card.

If a student wants his or her DVC records released to someone else, that person must show the Admissions and Records Office positive picture identification and an original permission note or release form that has been signed by the student. Please see page 11 for more information about transcript fees.



STUDENT FEES AND OTHER FINANCIAL OBLIGATIONS

Enrollment fee (CA residents)	\$46 per unit
Enrollment fee (U.S. citizens or permanent residents who are not California residents, or students who are not U.S. citizens)	\$321 per unit
Student union fee	\$1 per unit (maximum \$10 per student per academic year)
Student activity fee (fall and spring)	\$5 per term (fee is voluntary)*
Student representation fee (fall and spring)	\$2 per term (fee is voluntary)**
Parking fees	\$3 a day or \$48 for the fall or spring terms or \$25 mid-term (after the ninth week); \$25 for summer; \$25 per term for students who qualify for the Board of Governors Fee Waiver Free parking is available at the San Ramon Campus
Books, supplies, and course material fees	\$250-\$350 estimate per term for full-time students. Book and supply costs and requirements vary.
Course material fees	Some courses require additional materials fees. See schedule of classes for details.
Field trip fees	Students are expected to pay entrance fees for theaters, galleries, and other activities as well as provide their own transportation. (Alternate assignments given for students who cannot afford the cost.)
ASDVC Discount Sticker (fall and spring)	\$10 per term (optional) Purchase at Student Union Building, Book Center, or the Admissions and Records Office.



Transcript fees	<p>Standard: FREE for first two (within district)</p> <p>\$7.50 each thereafter</p> <p>Rush: \$15 each (processed within 24 hours)</p> <p>Express: \$30 each (processed within one hour)</p>
Verification of enrollment fees	<p>FREE for first two verifications (within district)</p> <p>\$2 fee for each request thereafter</p> <p>\$5 per verification for 24 hour express service</p>
<p>*Allows student government to provide funding for student-related activities and services.</p> <p>**Allows student government to provide support for governmental affairs representatives of local or state-wide student body organizations.</p> <p>Refund forms are available online, at the Cashier's Office, Student Life Office and Welcome/Information Center. Waiver/refund request forms must be submitted in person or by U.S. mail to the DVC Cashier's Office ONLY. Request for refund forms must be received within the first two weeks of instruction for a full term class, or before 10 percent of the class time for a short-term class. Refund checks will be issued monthly after the first two weeks of instruction each term.</p>	

Please note: All fees are subject to change by the state legislature. Check www.dvc.edu/fee for updated fee information.

Student debts to the college

Students are expected to pay their registration fees and all other financial debts at the time of registration. Students who owe fees for overdue library books, returned checks, or other debts will not be allowed to use college services (such as registering for classes or obtaining official transcripts) until their debts are paid. All debts must be paid no later than the end the term in which the fees were incurred.

Refund of Fees

Enrollment fee and non-resident tuition refunds

To receive a fee refund, students must withdraw from school or drop class(es) by the deadline. To qualify for an enrollment fee refund, students must officially drop units:

- within the first two weeks of a term for full-term classes (fall and spring),
- within the first 10 percent of the length of the class for short-term and summer classes.

Refunds are issued automatically within this time period. The refund policy complies with and is based upon Title 5 regulation and the California Education Code.

Residency reclassification and adjustment of fees

Students who believe they are coded as nonresidents in error have the opportunity to request residency reclassification, and if approved, reduce the charges on their account. Documentation is required. Residency reclassification can only be made during the current academic year. Retroactive reclassification for a prior academic year is not permitted.

Parking permit refunds

In order to obtain a refund, students must:

- officially drop all units within the first two weeks of the term (fall and spring),
- return the parking permit to the Cashier's Office at the Pleasant Hill Campus.

Course material fee refunds

In order to obtain a refund, students must officially drop the class within the first two weeks of the term length class. Refunds can be requested at the Cashier's Office at the Pleasant Hill Campus or at the Admissions and Records Office in San Ramon.



STUDENT FINANCIAL AID

Diablo Valley College has a broad range of financial aid programs. Pleasant Hill students should go to the Financial Aid or Scholarship offices at the Pleasant Hill Campus, and San Ramon students can go to the West Lobby of the Administration Building. Students may also visit www.dvc.edu/financialaid.

The following programs are administered through the Financial Aid Office, and require students to complete a Free Application for Federal Student Aid (FAFSA) online at www.fafsa.gov or a California Dream Act Application (AB-540 students only) at www.dream.csac.ca.gov. Additional requirements apply to specific programs listed below. Students must adhere to satisfactory academic progress policies and may be subject to financial aid funds policies when receiving financial aid. Please visit the Financial Aid Office website for more information.

Grants

There are seven grants available to students. Qualifications, availability, and limits vary. Please visit the Financial Aid Office website for more information.

California Promise Grant

Federal Pell Grant

Federal Supplemental Educational Opportunity Grant (FSEOG)

Cal Grant B (entitlement and competitive)

Cal Grant C

Student Success Completion Grant

California Chafee Grant

Work-Study

Federal Work-Study (FWS) - students can work up to 20 hours per week to help meet their educational costs. Work-study jobs are available at a variety of on-campus and off-campus locations. The funds are limited.

Loans

Federal loans are available and both students and parents can apply.

Other aid and benefits

All available financial aid and benefit opportunities are too numerous to list, and may be available through specific academic programs. Students should check with their instructors, division dean, the Financial Aid Office or Scholarship Office for other options that may apply.

Veterans benefits

Various federal and state agencies determine eligibility for veterans benefits, depending on whether the student is a veteran or a dependent of a veteran. Interested students should speak with a staff member in Veterans Services or contact the Department of Veterans Affairs at 925-313-1481 or 800-827-1000 or visit the website at www.va.gov, and DVC's website at www.dvc.edu/veterans.

Scholarships

The DVC scholarship program

High school students entering Diablo Valley College, continuing DVC students, and students transferring to four-year colleges and universities will find many opportunities to compete for scholarships established by local, state, and national organizations as well as individual sponsors. Call or visit the Scholarship Program Office for more information. www.dvc.edu/scholarships.

LEARNING RESOURCES AND SERVICES

DVC offers a wide variety of resources and services to support and enhance student success. All of these services are described in greater detail on the DVC website. The web address and contact information are listed with each service below.

Learning resources and services	Telephone	Website address
Admissions and Records Office	925-685-1310	www.dvc.edu/admissions
Assessment Center	925-969-2132	www.dvc.edu/assessment
CalWORKs Program	925-969-2119	www.dvc.edu/calworks
Career and Employment Services	925-969-2135	www.dvc.edu/career
Computer Center	925-969-2323	www.dvc.edu/computerlabs
Cooperative Agencies Resources for Education (CARE)	925-969-2123 or 925-969-2117	www.dvc.edu/eops
Counseling Center	925-969-2140	www.dvc.edu/counseling
Disability Support Services	925-969-2182	www.dvc.edu/dss
Educational Talent Search	925-969-2189	www.dvc.edu/ets
Enrollment Lab		www.dvc.edu/enrollmentlab
Extended Opportunity Programs and Services (EOPS)	925-969-2123 or 925-969-2117	www.dvc.edu/eops
Financial Aid	925-969-2009	www.dvc.edu/financialaid
International Student Admissions Services (ISAS)	925-969-2196	www.dvc.edu/international
Library Services	925-969-2588	www.dvc.edu/library
Media and Audiovisual	925-969-2576	www.dvc.edu/media
Transfer Services	925-969-2135	www.dvc.edu/transfer
Tutoring Services		www.dvc.edu/tutoring
Scholarship Office	925-969-2094	www.dvc.edu/scholarships
Student Life Office	925-969-4270	www.dvc.edu/student-life
Student Transition and Academic Retention Team (START) - Foster Youth	925-969-2203	www.dvc.edu/fosteryouth
Student Veteran Resource Center	925-969-2237	www.dvc.edu/veterans
Study Abroad	925-969-2507	www.dvc.edu/studyabroad
Upward Bound	925-969-2189 or 925-969-2194	www.dvc.edu/ets
Veteran Services	925-969-2121	www.dvc.edu/veterans
Welcome Services	925-969-2106	www.dvc.edu/welcomeservices
Work Experience Education	925-969-2026	www.dvc.edu/wrkx

COLLEGE POLICIES

chapter two
catalog 2019-2020



Nondiscrimination	15
Academic requirements and policies	16
Student rights and responsibilities	33
Grievance and complaint procedures	44
General college policies	44



NONDISCRIMINATION

Equal opportunity policy and grievance procedures

DVC does not discriminate on the basis of race, color, national origin, sex, sexual orientation, disability, or age in any of its policies, procedures, or practices, in compliance with Title VI of the Civil Rights Act of 1964 (pertaining to race, color, and national origin), Title IX of the Educational Amendments of 1972 (pertaining to sex), Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975 (pertaining to age), and CCCC Board Policy 2001. This nondiscrimination policy covers admission and access to, as well as treatment and employment in the college's programs and activities, including vocational education. Inquiries regarding the equal opportunity policies, the filing of grievances, or requests for a copy of the college's grievance procedures may be directed to the following: disability support services coordinator for disability related issues; Title IX, Sexual Harassment Title VI, discrimination based on race, color, or national origin, the vice president of student services, Administration Building.

This procedure affords students an opportunity to resolve a variety of complaints, including those alleging discrimination based on race, sexual orientation, color, national origin, sex, handicap, and age. Students who require assistance in the use of this procedure or any of the above-mentioned policies should contact the vice president of student services. For more information about the sexual harassment policy, please see: www.dvc.edu/harassment and for more information about equal opportunity policies and procedures, please see: www.dvc.edu/eoc.

Inquiries regarding federal laws and regulations concerning nondiscrimination in education or the district's compliance with those provisions may also be directed to the vice chancellor, human resources and organizational development, Contra Costa Community College District, 500 Court Street, Martinez, CA 94553, or U.S. Department of Education, Office of Civil Rights, 221 Main Street, Suite 1020, San Francisco, CA, 94105.

For more information or to initiate a grievance contact:

Vice president of student services (504, Title IX, Sexual Harassment; Title VI Coordinator and EEOC Officer)
925-969-2005

Vice president of finance and administration
(ADA Coordinator)
925-969-2018

Open course policy

It is the policy of the Contra Costa Community College District that unless specifically exempted by statute or regulation, every course, course section, or class reported for state funding, wherever offered and maintained by the district, shall be fully open to enrollment and participation by any person who has been admitted to the college and who meets the prerequisites as may be established pursuant to regulations contained in Title 5 Section 55200.

ACADEMIC REQUIREMENTS AND POLICIES

Academic course requirements and credit

Full-time status

A student must carry a minimum of 12 units in the fall or spring term or four units in a summer session to be considered a full-time student. Fifteen units is the usual load for students who wish to complete the associate degree in two years.

Term unit limit

In fall or spring term, a full-time course load is considered to be at least 12 units. Students who wish to enroll in more than 19 units in the fall or spring term or 12 units in the summer term must have permission prior to the start of the class. Request to exceed unit limits may be made online. For fall or spring term, go to www.dvc.edu/unitlimit. For summer, go to www.dvc.edu/unitlimit-SU.

Veterans must carry a course load of at least 12 certifiable units in order to receive full veteran's benefits.

International students must carry at least 12 certifiable units each term to maintain their F-1 status. Authorization to be below 12 units must be granted by a designated school official in the International Students Admissions and Services Office.

Remedial unit limit

By state law, students are only allowed to enroll in a maximum of 30 units of remedial coursework. Remedial courses are non degree applicable credit, basic skills courses and are numbered less than 100. The 30 unit limit includes all remedial courses taken at the three community colleges within our district.

Exemptions

Students enrolled in ESL courses or officially identified as having a learning disability are exempt from the 30 unit limit.

Variable unit courses

Some courses give students varying amounts of credit; for example, from one to three units. The number of units varies, depending on the following factors: the contract between instructor and student; how many segments of the course the student completes (for example, the course may be divided into three four-week segments); the subject matter and/or number of meetings; and the number of classes the student attends.

Repeating courses with satisfactory grade

As a general rule, students may not enroll more than once in a credit course if the student received a satisfactory grade on the previous enrollment. An enrollment occurs when a student receives an evaluative or non-evaluative symbol in a credit course. Evaluative symbols include A, B, C, D, F, P, and NP. Non-evaluative symbols include I, IP, RD, and W. A satisfactory grade is an A, B, C, or P. Substandard work is course work for which the grading symbols D, F, NP, or NC have been recorded. A student receiving an A, B, C, or P typically cannot enroll in that course again, unless an exception to the general rule applies that allows the student an additional enrollment or enrollments in that course.

The following exceptions to the general rule permit a student receiving a satisfactory grade to enroll in the same credit course again:

- courses properly designated by a district as repeatable
- a subsequent enrollment due to significant lapse of time (three years)
 - legally mandated courses
 - courses necessary as a result of significant change in industry or licensure standards
 - courses needed due to recency requirements for a program
- variable-unit courses offered on an open-entry/open-exit basis
- documented extenuating circumstances
- occupational work experience courses
- students with disabilities repeating a special class

For an additional enrollment in the same course to be allowed, either the student must meet the circumstances specified for the exception or, in the case of repeatable courses, the course is properly designated as repeatable. Students must petition to be granted an exception that allows a subsequent enrollment. The petition is found online at: www.dvc.edu/petition-to-repeat. If permission to repeat is granted, both grades will appear on the transcript and will be used in the grade point average calculation. Only the first course completed will be applied towards a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

Repeating courses with substandard grade

Students are limited to enrolling in non-repeatable, credit courses a maximum of three times. When a substandard grade ("D", "F", or "NP") is earned or dropped with a "W". Students who have received a substandard grade in a course should see the "improving a grade point average" on page 31 for more information. Students must petition for a third enrollment. The petition is found online at: www.dvc.edu/petition-to-repeat.

Repeatable courses:

There are three types that may be designated as repeatable by all students:

1. courses for which repetition is necessary to meet the major requirement of California State University (CSU) or University of California (UC) for completion of a bachelor's degree,
2. intercollegiate athletics, and
3. intercollegiate academic or vocational competition.

See course descriptions to determine which courses may be repeated.

Limitations on enrollment

Enrollment limits have been placed on certain types of courses offered within the Contra Costa Community College District. Students are limited to a total of four enrollments in courses that are considered "active participatory courses that are related in content." At DVC, these limitations apply to certain courses with the subject codes:

- ART
- DANCE
- DRAMA
- KNACT
- KNCMB
- KNDAN
- MUSIC

Within these subjects, courses that are "active participatory courses that are related in content" have been assigned to "families" and students are limited to four aggregate enrollments within the "family". The "families" are district-wide and the limitation to four enrollments applies to courses taken at any college within the district. Refer to the discipline descriptions in this catalog for further information on "families" and enrollment limitations.

Independent study courses

These courses are only available to students who have exhausted the learning opportunities of our regular course offerings. They require the student to undertake a significant project or research with clearly established, measurable learning objectives.

To apply for an independent study course, students should get a tentative agreement on their research project from a supervising instructor. They must then complete an independent study form (available in the Instruction Office or division offices) and receive approval of the supervising instructor and division dean.

Deadlines

Independent study forms must be submitted for approval to the division dean before the sixth week of the term.

Auditing of classes

Diablo Valley College does not permit auditing of classes. All students must submit an application for admission to the college and officially register in all courses.

Course prerequisites and/or co-requisites

Students enrolling in a course with a prerequisite must complete that prerequisite with a "C" grade or higher before they are allowed to register. A course has a prerequisite to ensure that a student has the appropriate body of knowledge to be successful. Courses with a co-requisite require that a student has successfully completed the course in a prior term or is enrolled in the co-requisite course in the same term.

Please note: Dropping a class with a co-requisite will result in a drop from both classes.

If taken at an institution other than DVC, coursework used to meet a prerequisite must be completed at a regionally accredited institution (e.g., colleges, universities, or high schools) as recognized by the U.S. Department of Education. All coursework used from other institutions must be equated to a DVC course. Should it be determined that coursework is not equivalent to a DVC course, a student may opt to challenge the prerequisite by following the prerequisite challenge process.

To see which courses have prerequisites and/or co-requisites see the individual course offerings in the catalog.

Prerequisite and/or co-requisite challenge

Students who are denied enrollment in a class because they do not meet the prerequisite requirement may challenge the prerequisite. Challenge petitions are available in the Admissions and Records Office.

Challenging a prerequisite or co-requisite

Prerequisites and co-requisites may be challenged for the following conditions:

- The prerequisite is based on health or safety and is either not valid or does not apply to a particular student.
- The prerequisite is discriminatory on the basis of ethnicity, religious belief, political persuasion, age, gender, or sexual orientation.
- The prerequisite course has not been reasonably made available at DVC.
- The prerequisite was not established according to state law.
- The student has the knowledge or ability to succeed in the course or program despite not meeting the prerequisite or co-requisite. The student has gained the knowledge and skills in another fashion, for example, through work or life experience.

Contact the Admissions and Records Office regarding information and forms for challenging prerequisites.

Acceptance of transfer credits and alternative credit

Transfer of credit and coursework

In order to evaluate for equivalent coursework, DVC accepts transcripts from institutions (e.g., colleges, universities, and high schools) from regional accrediting organizations as recognized by the U.S Department of Education. DVC also follows the recommendations of the American Association of Collegiate Registrars and Admissions and Records Officers. The official transcript from the other college is required. Students must submit sealed unopened transcripts in person or by mail to the Admissions and Records Office of Diablo Valley College. Students must make a counseling appointment to review the evaluation of their transcripts. The appointment initiates the evaluation of the transcript by admissions and records; therefore, transcripts must be on file with admissions and records a minimum of two weeks prior to the scheduling of the appointment. It is recommended that students complete this process prior to or during their first term of enrollment at DVC.

Students are advised that:

1. Only courses and credit from accredited institutions (e.g., colleges, universities, and high schools) will be considered for transfer to DVC.
2. Upper division courses may be applied to degree, certificate and transfer requirements under the following conditions:
 - a. Upper division coursework may be applied to satisfy DVC general education, major, and certificate requirements. A course substitution request form (available online) must be submitted to the Admissions and Records Office.
 - b. Upper division coursework may be applied to Intersegmental General Education Transfer Curriculum (IGETC) requirements under the following conditions:
 - I. When a University of California (UC) or California State University (CSU) campus has classified a course or series as upper-division but has requested that lower division transfer credit be allowed because an equivalent course is taught at a community college or because the preparation of the subject is desired prior to transfer. Current examples include economics, organic chemistry and abnormal psychology.
 - II. When a non-California Community College (CCC) course is determined comparable to one taught and approved for IGETC at a CCC, it may be applied to IGETC regardless of its upper-division status.
 - III. When a CSU uses an upper-division course in its "lower division" General Educational pattern.
 - c. Upper division coursework may be applied to California State University General Education (CSU GE) requirements under the following conditions:
 - I. When an upper-division course is equivalent to a lower-division course used to satisfy a CSU GE requirement.
 - II. When CSU uses an upper-division course in their CSU GE pattern.
3. Transfer credit and coursework may be applied towards the requirements of a degree or certificate program. Students are strongly encouraged to make a counseling appointment to determine applicability of courses taken elsewhere towards their program at DVC.
4. Courses completed at other community colleges as part of a Transfer Model Curriculum (TMC) aligned degree will be accepted for the requirements of the same TMC-aligned degree at Diablo Valley College. Courses with a Course Identification (C-ID) number are accepted to meet the area requirements of courses with the same C-ID number at DVC. Students are strongly encouraged to make a counseling appointment to determine whether there are specific course requirements at transfer institutions that will impact the courses they should select to meet their major requirements.
5. When courses completed at other institutions are determined to be equivalent to DVC courses but their unit value varies, students will not be required to "make up" missing units for DVC GE, major and/or certificate requirements. Students are always required to complete a minimum of 18 units for both major and general education requirements with three units in each GE area and 60 units for a degree.
6. Transfer coursework may be used to meet pre-requisites at Diablo Valley College. See the information on prerequisites on page 17.
7. Transfer credit and DVC credit together determine the student's overall GPA when applied to academic program requirements and financial aid and athletic eligibility. DVC will use plus/minus grades in GPA calculation.
8. Transfer credit from colleges and universities with different credit systems (quarter units) are converted to semester hours of credit.
9. DVC may accept Advanced Placement (AP), International Baccalaureate (IB), and College Level Examination Program (CLEP) scores to meet DVC general education and Transfer Studies certificate of achievement requirements as well as CSU GE and IGETC requirements and the major requirements of local and transfer associate degrees and certificates, if approved through the course substitution process. See the charts beginning on page 20 for the list of AP, IB, and CLEP examinations accepted. Students who wish to have AP, IB, or CLEP scores evaluated by DVC must submit official score reports for consideration.

10. Coursework and credits that may transfer will be determined based on an evaluation that may include but is not limited to: course content, objectives, student learning outcomes, units, grades, course level and applicability toward degree, certificate or prerequisite requirements as well as CSU GE and IGETC requirements. Should it be determined that coursework cannot be used for transfer, a student may explore other options (e.g., credit by exam, IGETC Certification in a Language Other than English). Students are encouraged to meet with a counselor to explore all possible options.
11. Foreign transfer credit may be applied toward the 60-unit requirement for the DVC associate degree only after an evaluation by an approved credential evaluation service (for a list see: <http://www.naces.org>). Students are advised to meet with a counselor and obtain guidelines from DVC admissions and records before requesting such an evaluation. Evaluations must include a course-by-course report with unit equivalencies, distinguishing between upper and lower division coursework and including letter grades. Students who wish foreign coursework to be used to meet specific course requirements for prerequisites, DVC majors, general education, or certificate requirements must provide detailed course descriptions. Foreign coursework cannot be used to certify California State University General Education (CSU GE) or IGETC requirements, except for the IGETC Language Other Than English requirement. Transfer of credit policy varies from institution to institution. Students who intend to transfer are advised to review the policy of the receiving institution.

Course substitution

Students may petition to substitute coursework completed within the Contra Costa Community College District and at a regionally accredited institution (e.g., colleges, universities, and high schools) as recognized by the U.S. Department of Education to meet DVC degree and certificate requirements. In order to initiate the process, students must submit the Petition for Course Substitution to the DVC Admissions and Records Office. The Admissions and Records Office will forward the Petition for Course Substitution to the appropriate faculty for approval. Course substitutions may be granted for courses that may be comparable but are not equivalent in content to a program requirement.

Students who wish to transfer credit for a course completed at another community college as part of an associate degree for transfer (ADT) that does not have a course identification (C-ID) number or is not equivalent to a DVC course should complete the course substitution process. Students are strongly encouraged to make a counseling appointment to determine whether there are specific course requirements at transfer institutions that will impact the courses they should substitute to meet their major requirements.

Students are advised to meet with a counselor or program advisor to discuss the course substitution option and to complete the petition process well before they plan to apply for a degree or certificate. Students may be approved to substitute a course prior to completing the course. Students petitioning to substitute coursework from outside the district must provide official transcripts from such institutions; it is not necessary to provide documentation to substitute coursework completed within the Contra Costa Community College District.

Only courses and credit from a regionally accredited institution (e.g., colleges, universities, and high schools) as recognized by the U.S. Department of Education will be considered for application to DVC degree and certificate requirements. When courses are substituted and their unit value varies, students will not be required to “make up” missing units for DVC GE, major, and/or certificate requirements. Students are always required to complete a minimum of 18 units for major and general education requirements, with three units in each area, and 60 units for a degree.

For certificate programs, at least twenty-five percent of the required courses must be completed at DVC.

Course substitution policy for students with disabilities for DVC associate degrees or certificates

Students, because of their disabilities, may be unable to complete a course required of DVC’s associate degree or certificate programs. Those wishing to apply for a course substitution should review the college’s complete course substitution policy. This policy is available in the Disability Support Services (DSS) Office. To initiate an application, please make a counseling appointment with a DSS counselor by calling 925-969-2140.

Alternatives to course credit

DVC recognizes that some students have already reached a portion of their educational objectives through prior coursework. DVC offers five options for students to receive alternatives to course credit: advanced placement, international baccalaureate, CLEP, credit by exam, and military service credit.

Units awarded under any of the categories below may not be used to meet the residency requirement for the associate degrees.

Advanced placement - for transfer requirements

Each four-year college or university determines the amount of credit that will be given for AP examinations and how that credit may be used. Students planning to transfer should consult the catalog of the college to which they plan to transfer for information on how these examinations can be used to meet admission, general education, and major requirements.

For students planning to transfer to a University of California or California State University campus, refer to the CSU GE and IGETC charts beginning on page 20 for use of AP exam credit towards meeting these general education requirements.

Diablo Valley College **College Credit for Advanced Placement (AP) Tests** **2019-2020**
 Students may earn credit for College Entrance Examination Board Advanced Placement (AP) Tests with scores of 3, 4, or 5. AP credit can be used to meet IGETC, CSU GE, and AA/AS general education (GE). Students must have the College Board send AP exam results to the Admissions Office (hand-carried copies will not be accepted) for use on the AA/AS or GE patterns.

All Units Denote Semester.

AP Exam	Minimum AP Score	AA/AS DVC GE Area Units	Units for DVC Associate Degree	CSU GE Area Units	CSU Credit	IGETC GE Area Units	UC Credit	UC Limitations toward Credit
Art History	3	Area III – Arts and Humanities 3 units	6	C1 or C2 3 units	6	3A or 3B 3 units	5.3	
Art, Studio	3	No GE Area	3	No GE Area	3	No GE Area	5.3	5.3 semester units max for all exams
3-D Design	3	No GE Area	3	No GE Area	3	No GE Area	5.3	
Drawing	3	No GE Area	3	No GE Area	3	No GE Area	5.3	
Biology	3	Area II – Natural Sciences 4 units	6	B2 and B3 4 units	6	5B and 5C 4 units	5.3	
Chemistry	3	Area II – Natural Sciences 4 units	6	B1 and B3 4 units (6 units if taken prior to F09)	6	5A and 5C 4 units	5.3	
Computer Science	3	No GE Area	3	No GE Area	3 ¹	No GE Area	5.3	(2 semester units prior to F18)
Computer Science¹ A	3	No GE Area	6	No GE Area	6 ¹	No GE Area	2.6	
Computer Science¹ AB	3	No GE Area	6	No GE Area	6 ¹	No GE Area	5.3	
Computer Science¹ Principles	3	Area 1B – Communication & Analytical Thinking 3 units and Area 1C – Mathematic Comprehension	6	B4 3 units	6 ¹	No GE Area	5.3	
Economics	3	Area IV - Social and Behavioral Sciences 3 units	3	D 3 units	3	4 3 units	2.6	
Microeconomics	3	Area IV - Social and Behavioral Sciences 3 units	3	D 3 units	3	4 3 units	2.6	
English	3	Area IA - English Composition 3 units	6	A2 3 units	6	1A 3 units	5.3	5.3 semester units max for both English Lang/Comp and English Lit/Comp
English Language and Composition	3	Area IA – English Composition and Area III – Arts and Humanities 6 units	6	A2 and C2 6 units	6	1A or 3B 3 units	5.3	
English Literature and Composition	3	Area II – Natural Sciences 4 units	4	B1 and B3 4 units (May apply to either B1+B3 or B2+B3 if taken prior to F09.)	4	5A and 5C 3 units	2.6	
Environmental Science	3	Area II – Natural Sciences 4 units	4	B1 and B3 4 units (May apply to either B1+B3 or B2+B3 if taken prior to F09.)	4	5A and 5C 3 units	2.6	

¹ If a student passes more than one AP exam in calculus or computer science, only one examination may be applied to the baccalaureate.

AP Exam	Minimum AP Score	AA/AS DVC GE Area Units	Units for DVC Associate Degree	CSU GE Area Units	CSU Credit	IGETC GE Area Units	UC Credit	UC Limitations toward Credit
Government and Politics	3	Area IV - Social and Behavioral Sciences 3 units	3	D 3 units	3	4 3 units	2.6	
	3	Area IV - Social and Behavioral Sciences 3 units	3	D and US-2 3 units	3	4 and US-2 3 units	2.6	
History	3	Area III - Arts and Humanities or Area IV - Social and Behavioral Sciences 3 units	6	C2 or D 3 units	6	3B or 4 3 units	5.3	
	3	Area III - Arts and Humanities or Area IV - Social and Behavioral Sciences 3 units	6	(C2 or D) and US-1 3 units	6	(3B or 4) and US-1 3 units	5.3	
	3	Area III - Arts and Humanities or Area IV - Social and Behavioral Sciences 3 units	3 (6 units if taken prior to S19)	C2 or D 3 units	3	3B or 4 3 units	5.3	
Human Geography	3	Area IV - Social and Behavioral Sciences 3 units	3	D 3 units	3	4 3 units	2.6	
Language Other than English	3	Area III - Arts and Humanities 3 units	6	C2 3 units	6	3B and 6A 3 units	5.3	
	3	Area III - Arts and Humanities 3 units	6	C2 3 units	6	3B and 6A 3 units	5.3	
	3	Area III - Arts and Humanities 3 units	6	C2 3 units	6	3B and 6A 3 units	5.3	
	3	Area III - Arts and Humanities 3 units	6	C2 3 units	6	3B and 6A 3 units	5.3	
	3	Area III - Arts and Humanities 3 units	6	C2 3 units	6	3B and 6A 3 units	5.3	
	3	Area III - Arts and Humanities 3 units	6	C2 3 units	6	3B and 6A 3 units	5.3	
	3	Area III - Arts and Humanities 3 units	6	C2 3 units	6	3B and 6A 3 units	5.3	
	3	Area III - Arts and Humanities 3 units	6	C2 3 units	6	3B and 6A 3 units	5.3	
3	Area III - Arts and Humanities 3 units	6	C2 3 units	6	3B and 6A 3 units	5.3		
3	Area III - Arts and Humanities 3 units	6	C2 3 units	6	3B and 6A 3 units	5.3		

AP Exam	Minimum AP Score	AA/AS DVC GE Area Units	Units for DVC Associate Degree	CSU GE Area Units	CSU Credit	IGETC GE Area Units	UC Credit	UC Limitations toward Credit
Latin	3	Area III - Arts and Humanities 3 units	6	C2 3 units	6	3B and 6A 3 units	5.3 (2.6 units if taken prior to F13)	
Latin: Vergil (Only if taken Prior to F12)	3	Area III - Arts and Humanities 3 units	3	C2 3 units	3	3B and 6A 3 units	2.6	
Latin Literature (Only if taken prior to F09)	3	Area III - Arts and Humanities 3 units	6	C2 3 units	6	3B and 6A 3 units	2.6	
Spanish Language (Only if taken prior to S14)	3	Area III - Arts and Humanities 3 units	6	C2 6 units	6	3B and 6A 3 units	5.3	
Spanish Language and Culture	3	Area III - Arts and Humanities 3 units	6	C2 3 units	6	3B and 6A 3 units	5.3	
Spanish Literature (Only if taken prior to S13)	3	Area III - Arts and Humanities 3 units	6	C2 6 units	6	3B and 6A 3 units	5.3	
Spanish Literature and Culture	3	Area III - Arts and Humanities 3 units	6	C2 3 units	6	3B and 6A 3 units	5.3	
Mathematics								
Calculus AB ¹	3	Area IB - Communication and Analytical Thinking 3 units and Area IC - Mathematics Comprehension	3 6 units max for all Calculus exams	B4 3 units	3 ¹	2A 3 units	2.6	5.3 semester units max for both Math AB and the Math BC exams; 2.6 units for both Math AB and the Math AB subscore.
Calculus BC ¹	3	Area IB - Communication and Analytical Thinking 3 units and Area IC - Mathematics Comprehension	6 6 units max for all Calculus exams	B4 3 units	6 ¹	2A 3 units	5.3	
Calculus BC/AB ¹ Subscore	3	Area IB - Communication and Analytical Thinking 3 units and Area IC - Mathematics Comprehension	3 6 units max for all Calculus exams	B4 3 units	3 ¹	2A 3 units	5.3	
Music Theory (Only if taken prior to F09)	3	No GE Area	6	C1 3 units	6	No GE Area	5.3	Credit for full Music Theory exam. Students who earn only a subscore will not receive exam credit.

¹ If a student passes more than one AP exam in calculus or computer science, only one examination may be applied to the baccalaureate.

AP Exam	Minimum AP Score	AA/AS DVC GE Area Units	Units for DVC Associate Degree	CSU GE Area Units	CSU Credit	IGETC GE Area Units	UC Credit	UC Limitations toward Credit
Physics	3	Area II - Natural Sciences 4 units	6 units max for all Physics exams	B1 and B3 ² 4 units	4	5A and 5C 4 units	5.3	5.3 semester units max for all Physics exams
	3	Area II - Natural Sciences 4 units	6 units max for all Physics exams	B1 and B3 ² 4 units	4	5A and 5C 4 units	5.3	
	3	Area II - Natural Sciences 4 units	6 units max for all Physics exams	B1 and B3 ² 4 units (6 units if taken prior to F09)	6	5A and 5C 4 units	5.3	
	3	Area II - Natural Sciences 4 units	6 units max for all Physics exams	B1 and B3 ² 4 units	4	5A and 5C 3 units	2.6	
Physics C: Electricity and Magnetism	3	Area II - Natural Sciences 4 units	6 units max for all Physics exams	B1 and B3 ² 4 units	4	5A and 5C 3 units	2.6	
	3	Area II - Natural Sciences 4 units	6 units max for all Physics exams	B1 and B3 ² 4 units	4	5A and 5C 3 units	2.6	
Psychology	3	Area IV - Social and Behavioral Sciences 3 units	3	D 3 units	3	4 3 units	2.6	
Seminar	3	No GE Area	3	No GE Area	3			
Statistics	3	Area IB - Communication and Analytical Thinking 3 units and Area IC - Mathematics Comprehension	3	B4 3 units	3	2A 3 units	2.6	

² If a student passes more than one AP exam in physics, only six units of credit may be applied to the baccalaureate, and only four units of credit may be applied to a certification in GE Breadth.

2019-2020

Diablo Valley College College Credit for College-Level Examination Program (CLEP) Exams

Students may earn credit for College-Level Examination Program (CLEP) exams with scores of 50 or higher. CLEP credit can be used to meet CSU GE and AA/AS general education (GE) and/or major requirements. Students must have College Board send CLEP exam results to the Admissions Office (hand-carried copies will not be accepted) for use on the AA/AS or GE patterns. UC does not accept CLEP exams.

All Units Denote Semester.

CLEP Exam	CLEP Score	AA/AS DVC GE Area Units	Units for DVC Associate Degree	CSU GE Areas Units	CSU Credit
American Government	50	Area IV - Social and Behavioral Sciences 3 units	3	D 3 units	3
Biology	50	Area II - Natural Sciences 3 units	3	B2 3 units	3
Business	50	No GE Area	3	No GE Area	3
Financial Accounting	50	No GE Area	3	No GE Area	3
Information Systems and Computer Applications	50	No GE Area	3	No GE Area	3
Introductory Business Law	50	No GE Area	3	No GE Area	3
Principles of Accounting	50	No GE Area	3	No GE Area	3
Principles of Management	50	No GE Area	3	No GE Area	3
Principles of Marketing	50	No GE Area	3	No GE Area	3
Chemistry	50	Area II - Natural Sciences 3 units	3	B1 3 units	3
Economics	50	Area IV - Social and Behavioral Sciences 3 units	3	D 3 units	3
Principles of Macroeconomics	50	Area IV - Social and Behavioral Sciences 3 units	3	D 3 units	3
Principles of Microeconomics	50	Area IV - Social and Behavioral Sciences 3 units	3	D 3 units	3
English¹	50	Area III - Arts and Humanities 3 units	3	C2 3 units	3
American Literature	50	Area III - Arts and Humanities 3 units	3	C2 3 units	3
Analyzing and Interpreting Literature	50	Area III - Arts and Humanities 3 units	3	C2 3 units	3
English Literature (Only if taken prior to F11)	50	Area III - Arts and Humanities 3 units	3	C2 3 units	3
History²	50	Area IV - Social and Behavioral Sciences 3 units	3	D and US-1 3 units	3
United States I	50	Area IV - Social and Behavioral Sciences 3 units	3	D and US-1 3 units	3
United States II	50	Area IV - Social and Behavioral Sciences 3 units	3	D and US-1 3 units	3
Western Civilization I	50	Area III - Arts and Humanities or Area IV - Social and Behavioral Sciences 3 units	3	C2 or D 3 units	3
Western Civilization II	50	Area IV - Social and Behavioral Sciences 3 units	3	D 3 units	3
Human Growth and Development	50	Area IV - Social and Behavioral Sciences 3 units	3	E 3 units	3

¹ CLEP College Composition, College Composition - Modular, English Composition (no essay), English Composition with Essay and Freshman College Composition are not accepted for general education units or elective credits.

² CLEP Social Sciences and History exam is not accepted for general education units or elective credits.

CLEP Exam	CLEP Score	AA/AS DVC GE Area Units	Units for DVC Associate Degree	CSU GE Areas Units	CSU Credit
Humanities					
Language Other than English³					
French Level I ³	50	Area III – Arts and Humanities 3 units	3	C2 3 units	3
French Level II ³	50	No GE Area	6	No GE Area	6
German Level I ³	59	Area III – Arts and Humanities 3 units	9 (12 if taken prior to F15)	C2 3 units	9 (12 if taken prior to F15)
German Level II ³	50	No GE Area	6	No GE Area	6
Spanish Level I ³	60	Area III – Arts and Humanities 3 units	9 (12 if taken prior to F15)	C2 3 units	9 (12 if taken prior to F15)
Spanish Level II ³	50	No GE Area	6	No GE Area	6
Mathematics⁴					
Calculus	50	Area IB – Communication and Analytical Thinking 3 units and Area IC – Mathematics Comprehension	3	B4 3 units	3
College Algebra	50	Area IB - Communication and Analytical Thinking 3 units and Area IC – Mathematics Comprehension	3	B4 3 units	3
College Algebra – Trigonometry	50	Area IB - Communication and Analytical Thinking 3 units and Area IC – Mathematics Comprehension	3	B4 3 units	3
Pre-Calculus	50	Area IB - Communication and Analytical Thinking 3 units and Area IC – Mathematics Comprehension	3	B4 3 units	3
Trigonometry (Only if taken prior to F06)	50	Area IB - Communication and Analytical Thinking 3 units and Area IC – Mathematics Comprehension	3	B4 3 units	3
Natural Sciences					
Psychology					
Introductory Psychology	50	Area IV - Social and Behavioral Sciences 3 units	3	D 3 units	3
Introduction to Educational Psychology	50	No GE Area	3	No GE Area	3
Introductory Sociology					
Introductory Sociology	50	Area IV - Social and Behavioral Sciences 3 units	3	D 3 units	3

³ If a student passes more than one CLEP test in the same language other than English (e.g., two exams in French), then only one examination may apply to the baccalaureate. For each test in a language other than English, a passing score of 50 is considered "Level I" and earns six units of baccalaureate credit; the higher score listed for each test is considered "Level II" and earns additional units of credit and placement in Area C2 of GE Breadth, as noted.

⁴ CLEP College Mathematics exam is not accepted for general education units or elective credits.

2019-2020

Diablo Valley College College Credit for International Baccalaureate (IB) Exams

Diablo Valley College

Students may earn credit for International Baccalaureate (IB) Higher Level exams with scores of 5, 6, or 7. IB credit can be used to meet IGETC, CSU GE, and AA/AS general education (GE). Students must have the International Baccalaureate Organization send IB exam results to the Admissions Office (hand-carried copies will not be accepted) for use on the AA/AS or GE patterns.

All Units Denote Semester.

IB Exam	Minimum IB Score	AA/AS DVC GE Area Units	Units for DVC Associate Degree	CSU GE Areas Units	CSU Credit	IGETC GE Areas Units	UC Credit	UC Limitations toward Credit
Biology HL	5	Area II – Natural Sciences 3 units	6	B2 3 units	6	5B 3 units	5,3	The units granted for IB exams are not counted toward the maximum number of credits required for a major or the maximum number of units a student may accumulate prior to graduation. Students who enter the UC with IB credit do not have to declare a major earlier than other students, nor are they required to graduate earlier.
Chemistry HL	5	Area II – Natural Sciences 3 units	6	B1 3 units	6	5A 3 units	5,3	
Economics HL	5	Area IV - Social and Behavioral Sciences 3 units	6	D 3 units	6	4 3 units	5,3	
Geography HL	5	Area IV - Social and Behavioral Sciences 3 units	6	D 3 units	6	4 3 units	5,3	
History (any region) HL	5	Area III – Arts and Humanities or Area IV - Social and Behavioral Sciences 3 units	6	C2 or D 3 units	6	3B or 4 3 units	5,3	
Language A1 (any language, except English) HL ²	5 ¹	Area III – Arts and Humanities 3 units	6	C2 3 units	6	3B and 6A 3 units	5,3	
Language A2 (any language, except English) HL ²	5 ¹	Area III – Arts and Humanities 3 units	6	C2 3 units	6	3B and 6A 3 units	5,3	
Language A Literature HL (Prior to F13 known as Language A1 (any language) HL)	5 ¹	Area III – Arts and Humanities 3 units	6	C2 3 units	6	3B 3 units	5,3	
Language A Language and Literature HL (Prior to F13 known as Language A2 (any language) HL)	5 ¹	Area III – Arts and Humanities 3 units	6	C2 3 units	6	3B 3 units	5,3	
Language B (any language) HL ²	5 ¹	Area III – Arts and Humanities 3 units	6	No GE Area	6	6A 3 units	5,3	
Mathematics HL	5 ¹	Area IB - Communication and Analytical Thinking 3 units and Area IC - Mathematics Comprehension	6	B4 3 units	6	2A 3 units	5,3	
Physics HL	5	Area II - Natural Sciences 3 units	6	B1 3 units	6	5A 3 units	5,3	
Psychology HL	5	Area IV - Social and Behavioral Sciences 3 units	3	D 3 units	3	4 3 units	5,3	
Theatre HL	5 ¹	Area III – Arts and Humanities 3 units	6	C1 3 units	6	3A 3 units	5,3	

¹For CSU, an IB score of 4 or higher may meet this requirement.

²The IB curriculum offers language at various levels for native and non-native speakers. Language B courses are offered at the intermediate level for non-natives. Language A1 and A2 are advanced courses in literature for native and non-native speakers, respectively.

Credit by exam

Students may earn credit through examinations available through DVC academic departments. These examinations are usually more comprehensive than the typical final examination for a course, and they may be prepared by national organizations.

To take these examinations students must submit a "Petition for Credit by Examination" form, available at the division offices, to the department chair at least six weeks before the end of a fall or spring term. The department chair approves or denies the petition within five days and returns the form to the student. The student submits the form and pays the course fee to the Admissions and Records Office. They will forward the form to the department chair. Arrangements for administration of the examination will be made by department faculty. The examination itself may take any appropriate form such as written, oral, portfolio, demonstration, or a combination of methods.

In addition:

- The student should not already have taken the course or attempted an examination in the course, whether at DVC or elsewhere.
- A maximum of 12 units toward an associate degree or six units toward a certificate may be earned by courses for which credit has been earned by examination.
- Credits earned by examination cannot be used to satisfy the 12-unit residence requirement for the associate degree.
- The student's academic record shall be clearly annotated to reflect that credit was earned by examination.
- A student may only petition to take the examination once.
- The course must not be a prerequisite for one the student has already taken or is now enrolled in.
- The student will be charged a fee for the examination equivalent to the enrollment fee for the class, with exception granted to adult school students who are eligible to receive college credit per an active articulation agreement with DVC.

Grading shall be according to the regular grading system. If a student passes the examination, a grade is recorded on his or her permanent record with the notation "credit by examination". If a student fails, that failure is recorded on the permanent record and the student is not allowed to take the examination again. Substandard grades may be remediated by enrolling in the course. The petition form is retained in the student's permanent file.

Military service credit

Veterans may apply for evaluation of military service for credit through the Admissions and Records Office. Credit may be granted toward an associate degree for the following training:

- Six units of elective credit for the completion of basic training and one year or more of active duty in the military service upon submission of DD-214 (separation papers) with a discharge other than dishonorable, to the Admissions and Records Office.
- Three of the six elective units may be applied towards the fulfillment of CSU General Education requirement "E. Lifelong Understanding and Self Development."

ROTC

All DVC students interested in becoming commissioned officers in the United States Air Force, Army, or Navy may register for lower-division military science courses at UC Berkeley and have these credits applied toward a DVC's associate degree. Credit is granted initially through UC Extension, but will be applied toward an associate degree at DVC when a transcript is received. Interested students should call UC Berkeley for more information.

Attendance policy

Students are expected to attend all class meetings, regardless of whether the instructor takes attendance. The instructor may drop students who miss more than the equivalent of two weeks of a term-length course. Students must contact the instructor to inform him or her of an absence. The college does not relay such messages.

Attendance at the first class meeting

If a student wishes to secure a place in class, he or she must attend the first class meeting. The instructor may drop students who do not attend the first class meeting, thereby opening a space for students wishing to add the class. If students do not attend the first class meeting, it is still their responsibility to officially drop the class.

Field trips

If participating in a class field trip or other college sponsored activity causes a student to miss other classes, the student will not be penalized for the absence. Students must be allowed to make up any class work or point earning opportunities that they have missed (including exams, quizzes, and participation points) provided they have notified their instructor a minimum of two weeks in advance of their impending absence (or as soon as possible if there are extenuating circumstances such as post-season intercollegiate competition, rain make-ups, or field trips within the first two weeks of the term).

Leave of absence

Students who need to take a leave of absence during the term may obtain the request form from the DVC website at www.dvc.edu/studentleave and then receive written approval from each of their instructors. Then the student must discuss the petition with a counselor and obtain their signature, as well as the signature of the vice president of student services. A leave of absence is limited to 10 instructional days. Instructors may drop students who have been absent for more than the equivalent of two weeks of instruction without an approved leave of absence.

Grading

Grade policy

The assignment of grades is the exclusive responsibility of the individual instructor. DVC grading policies are based on the faculty's philosophy, California Administration Code, Title 5 (Sec. 51300-51325), and the Contra Costa Community College District Board Policy 4001.

DVC uses the following evaluative grades and non-evaluative symbols:

Grade	Grade points per unit
A — — Excellent _____	4
B — — Good _____	3
C — — Satisfactory _____	2
D — — Passing, less than satisfactory _____	1
<i>(Not a recommending grade for continuation in sequential courses)</i>	
F — — Failing _____	0

The following grade symbols are not considered in calculations of cumulative grade point averages, but the "W," "I," and "NP" grades are considered in determinations of progress probation and dismissal:

An "I" followed by a grade of B, C, D, F, or N is an incomplete grade that has not yet expired. The grade that follows will be issued if the incomplete is not made up or the incomplete contract expires.

I — — Incomplete _____	0
IB	
IC	
ID	
IF	
IN	
P — — Pass _____	0
<i>(At least satisfactory or a C grade; units not counted in GPA)</i>	
NP — — No Pass _____	0
<i>(Less than satisfactory; units not counted in GPA)</i>	

The following are non-evaluative symbols:

W — — Withdrawal _____	0
<i>(Assigned to students who withdraw from a class within the allowed time.)</i>	
MW — — Military Withdrawal _____	0
<i>(Assigned when a student who is a member of an active or reserve United States military service receives orders compelling a withdrawal from courses.)</i>	
IP — — In Progress _____	0
<i>(Indicates the course was in progress beyond the end of the term.)</i>	
RD — — Report Delayed _____	0
<i>(Indicates delay in reporting grade.)</i>	

Grades earned on non degree applicable courses are not included in the degree applicable grade point average.

Academic honors

Students who have completed at least 12 letter-graded units during the term and earned a grade point average of at least 3.0 will receive honors recognition on their transcripts.

Graduation honors

Graduation honors will appear on a student's transcript if a 3.5 grade point average in all college work (excluding non degree applicable and upper division courses) is maintained at the end of the term in which the student has applied to graduate. A student intending to graduate in the spring must have a 3.5 grade point average as of February 1 for honors to appear in the ceremony program, but the 3.5 grade point average must be maintained at the end of the term to have honors appear on the student's transcript.

Incomplete grades

Incomplete grades are assigned only in cases of emergency such as accident, illness, or family emergency. An incomplete contract must be completed by the instructor and accepted by the student at the time the grade is posted. The instructor, student, and division dean must all sign the contract, which is then submitted to the Admissions and Records Office. Students who receive an incomplete grade cannot register for the same course in which they received the incomplete. The incomplete grade must be resolved no later than one calendar year following the grade assignment or it will automatically revert to the alternate grade assigned by the instructor per the contract. Extensions to the one-year deadline may be granted for good cause with instructor approval. The instructor must notify the Admissions and Records Office of the extension prior to the expiration of the incomplete.

Pass/no pass grades (P/NP)

These grades are not used in the calculation of grade point averages, although the units for P grades are applied toward the 60 required for an associate degree. Four-year colleges often limit the number of P units that they will accept from transfer students. To determine if there are any negative implications to choosing a P/NP grading, students are advised to refer to the policies of the college to which they intend to transfer. P/NP grade option cannot be reversed after 25 percent of the class has passed.

Student choice (SC)

A course labeled “SC” means that before the deadline, students can decide to take the course for a letter grade or for a P/NP grade. Students must complete a form in the Admissions and Records Office to take the course for a P/NP grade. If students do not choose the P/NP option before the deadline, they will be issued a letter grade for the course. It is often best to discuss this choice with a counselor.

Students have until the fourth week of the class (or 25 percent of the term for shorter classes) to decide. After the deadline has passed, the grading choice may not be reversed.

Non credit courses

Non credit courses are open to all students for registration. There are no enrollment fees for non credit courses, but an application for admission is necessary. Non credit courses are not graded and are non degree applicable.

Fairness in grading

During the first week of each class, instructors will give their students a copy of their class syllabus, which will include their grading policies. Students may expect instructors to:

- record the student’s grade for each oral and written test or report that will affect the final grade, notify the student of the grade, and if necessary, review the results with the student;
- evaluate the student within the first quarter of the class and notify the student of the results of the evaluation;
- count a final examination for no more than half the course grade;
- base final grades on at least three of the student’s tests and/or reports (exception in cases of violations of DVC’s academic dishonesty procedure 4001.04).

Note: Instructors are expected to retain any test or report that is not returned to a student for a period of one academic year. Grade records should be available for a period of three years after grades are awarded. Instructors who are not scheduled to teach should leave their records with their division dean.

Grade corrections

Students who believe that they have received an incorrect grade must initiate a grade correction within one calendar year after they received the grade. To have a grade corrected, students must ask the instructor to correct the grade and have them submit a grade correction form. The instructor has final authority to determine if the student’s grade should be changed.

Note: Except in extenuating circumstances such as serious illness, grade corrections may not be made from “F” to “W.” It is the student’s responsibility to withdraw from a class prior to the drop deadline.

Student appeals for grade changes

DVC is committed to the concept of academic freedom, which guarantees to individual instructors wide latitude in how they structure and conduct their classes. Such matters as the amount of homework, the kind and frequency of testing, the nature of the grading system, the degree of class participation expected, the choice of textbooks, the theoretical perspective, and the emphasized topics are all, within very wide boundaries, at the discretion of the instructor (described under “fairness of grading”).

Difficulties occasionally arise between students and faculty members about grades. Most misunderstandings are resolved amicably and the college urges students to discuss problems directly with faculty members. Because some disagreements cannot be resolved informally, DVC has a procedure for resolution of grade complaints that the student must initiate.

Grounds for grade changes

The most common problems are those concerning the grade assigned for class work. According to state law, a grade assigned by an instructor at the end of a term can be changed only by that instructor, except in cases of mistake, fraud, bad faith or incompetence. (A finding of bad faith should be supported by specific evidence that the instructor harbored ill-will or discriminatory intent, which motivated the instructor to assign to a student a grade lower than the grade the student should have earned based on objective criteria.) This policy does not apply to challenges of deadlines for pass (P) or no pass (NP). Pass/no pass grades cannot be changed to letter grades once 25 percent of the class has passed.

The informal steps below (1 and 2) may be undertaken at any time; however, a formal complaint must be filed in writing with the vice president of instruction, or designee, no later than one year following the end of the term in which the grade was given. A formal complaint may be filed at any time with the chancellor, who will refer the complainant to his designee, the DVC president. The president will designate the Complaint Review Committee to consider the complaint.

Process

If a clerical or tabulation error has been made, it can be handled through the grade correction process.

The “fairness in grading policy” section (under academic policies) clearly explains the grading guidelines a student can expect. At the beginning of each class, instructors must give students a copy of their grading policies.

If a student believes that a faculty member has deviated from these policies in the evaluation of his/her work, he/she may pursue a complaint under the description of mistake, fraud, bad faith, or incompetence. The student has the option of having a representative present at this and/or subsequent meetings.

1. In the event of a problem over a grade, the student should first meet with the instructor and request an explanation of the grade. If it is uncomfortable for the student to deal with an instructor alone, a person of the student’s choice may accompany him/her. If the instructor agrees to a grade change he/she fills out a grade change report in accordance with grade change correction policy.
2. If the student and the instructor cannot resolve the problem, the next step is for the student to meet with the department chair, who will attempt to mediate the issue. If the department chair is unable to achieve settlement, the next step for the student is to meet with the division dean, who will attempt to mediate the issue. The mediation effort shall include a conference with the division dean, the department chairperson, the student and the faculty employee, if available, and/or individual or combined sequential meetings between the division dean and the department chairperson, the student and the faculty employee, if available. The student may have a representative present in either event. If the issue is not resolved to the satisfaction of the student, the division dean should prepare a written summary of the mediation efforts and forward it to the vice president of instruction for the continuation of the appeal process.
3. If the student is not satisfied with these mediation efforts, he/she may request a formal hearing before a complaint review committee, which is the president’s designee. The student must submit his/her complaint in writing and should include a precise statement of the nature of the complaint (mistake, fraud, bad faith or incompetence), any facts relevant to it, and the student’s perception of a fair resolution. The complaint must be filed with the vice president of instruction, or designee, no later than one year following the end of the term when the grade was given.

The complaint review committee will be composed of three faculty members appointed by the Faculty Senate, one of whom must be from the same division as the faculty member involved in the complaint; two students appointed by the ASDVC; and the vice president of instruction, or designee, who will act as chairperson. (All six shall be voting members.) A tie vote means the complaint is not proven. The results will be referred to the president.

The student may be accompanied by a representative.

- a. The committee shall meet within 30 instructional days of receipt of a complaint. If the complaint is filed within four weeks of the end of a term, the meeting may be delayed at the option of either the student, the faculty member involved or the vice president of instruction until the next term. In this event, the committee shall meet within the first four weeks of the new term. If time constraints prevent the meeting at the end of spring term, the meeting shall be held within the first 20 instructional days of the fall term. If this delay would result in hardship for the student or faculty member, they should advise the vice president of instruction and may request the meeting take place at the earliest time the other party(ies) and the vice president are available. In closed hearing, the committee will hear testimony by the student, the faculty member, the division dean who attempted mediation, and any supporting witnesses that either the student or faculty member care to introduce. The burden of proof shall rest with the complainant. Documentation may also be submitted. Summary minutes will be taken; the hearing may be tape recorded, but only with the permission of all participants.
- b. Within ten instructional days, the committee, under the direction of the vice president of instruction, or designee, will meet and recommend a resolution based on a majority vote of all six members. A written recommendation will be submitted to the college president within 15 instructional days of such meeting; a minority report, if any, must be noted. Copies of the recommendations will be sent to the student, the faculty member, and all members of the committee.

If the committee does find that fraud, bad faith, or incompetence led to a grading error, the rationale for the decision must be stated in the recommendations, and the committee must recommend a replacement grade to the president.
- c. The president will review the committee’s recommendations, then notify the student, the faculty members, the members of the committee, the Faculty Senate president and the vice president of instruction or designee, of the college president’s decision within ten instructional days of its receipt.

4. If the complaint is denied, the student will be notified of his or her right to appeal the decision to the Contra Costa Community College District governing board within 30 calendar days of notification of the decision. If the complaint is upheld, the faculty member will be notified of his/her right to appeal the decision to the Contra Costa Community College District governing board, or designee, within 30 instructional days of notification of the decision. If an instructor fails to appeal a decision of the president sustaining the student's complaint within 30 instructional days, the president shall order the grade in question to be expunged from the student's records and enter in its place the grade deemed appropriate by the complaint review committee.

If the decision of the president is appealed and the governing board or designee sustains the student's complaint, the president shall order the grade in question to be expunged from the student's records and the grade deemed appropriate by the complaint review committee entered in its place.

5. The decision of the governing board or designee is final. All records of such hearings at any level shall be destroyed at the end of one year, unless the student initiates legal proceedings relative to the disputed grade within one year.

If the decision of the governing board or designee is unfavorable to the student, or if the student accepts an unfavorable decision of the complaint review committee, the student shall have the right to submit a written statement of objections to the grade, which shall become a part of the student's records.

Steps for resolution of grade complaints:

1. Meet with instructor for an explanation. If unresolved, then,
2. Request department chair mediation. If unresolved, then,
3. Request division dean mediation. If unresolved, then,
4. Request formal hearing with complaint review committee by submitting a formal written complaint to the office of the vice president of instruction.
 - a. Hearing with committee
 - b. Committee recommendation to college president
 - c. President's review and decision
5. Student and faculty member have appeal rights.
6. Final decision.

Improving a grade point average

Course repetition

When students receive a substandard grade ("D," "F," or "NP") for a course, they may enroll in it a second time without being required to request permission. If it becomes necessary for students to attempt a course for the third time, they must request special permission to do so. This request may be made online at www.dvc.edu/petition-to-repeat. Under no circumstances may a student repeat a course more than two times to alleviate a substandard grade (Title 5, section 55042).

If a student repeats the same course one time, the previous grade will not be used in the GPA calculation. Should the student repeat the same course two or more times, only the two previous grades may be disregarded from the GPA calculation. When a course is repeated all grades will appear on the transcript. An "R" notation will appear next to the first grade, (and a second grade if the course is attempted three times) indicating that the course has been repeated.

Academic renewal without course repetition

Academic renewal allows students to have up to 24 units of substandard grades ("D," "F," or "NP") excluded (without the student having to repeat the course) from their grade point averages. To be eligible, students must have completed 20 units of satisfactory work ("C" grade or better) that has been completed within the Contra Costa Community College District or any other accredited college or university, since receiving the last substandard grade (the unit count begins the term after the substandard grade is received, in-progress terms cannot be included). The student must not have received any "D's," "F's" or "NP" since the substandard work (minimum 2.0 since substandard work). RD and I grades must be resolved before submitting a petition. Students interested in academic renewal should request a petition from the Admissions and Records Office (Title 5, section 55046)) and must have a counselor sign the form before submitting it to the Admissions and Records Office.

Academic renewal may be granted one time within the Contra Costa Community College District. Once applied, academic renewal may not be reversed.

Instructors' rights policy

If a student is disrupting class, the instructor may have him or her removed, and the instructor may also remove that student from the next class meeting. For more information about removal, see the "student code of conduct" section.

The instructor must give permission before a student can record in class using an audio or video device.

Instructors have the exclusive responsibility for assigning grades. For more information, see the "grade policy" section of the catalog.

Instructors' withdrawal option

Students who miss the first meeting of a class may be dropped by the instructor. Any student who is absent the equivalent of two weeks of a term-length class without an acceptable excuse may also be dropped by the instructor. In these cases the student may be able to re-enter the class if the instructor agrees and signs an Instructor Reinstate Form, reinstating the student. This decision is entirely up to the instructor.

Note: There is no automatic withdrawal process, and students may receive an "F" grade for the course if they do not officially drop the class prior to the deadline. An "F" grade may not be changed to a "W" grade except in the case of documented extenuating circumstances such as serious illness or military deployment.

Probation and dismissal policy

Academic probation

Students are expected to make steady progress toward their educational goals by maintaining a "C" average or higher in their courses. If a student's cumulative record shows that he or she has completed at least 12 letter-graded units, that student must maintain a grade point average of at least 2.0, or be placed on academic probation. Students on stage one probation will be blocked from enrollment in future terms and are required to complete the online student success workshop and complete a short quiz or schedule a meeting with a counselor. Students on stage two probation will be blocked from enrollment in future terms until they have either arranged a meeting with a counselor to develop a plan for improvement or complete the online student success workshop and complete a short quiz.

Academic dismissal

Students are subject to academic dismissal if, after they have been on academic probation for two consecutive terms, their grade point average in the most recent term is not 2.0 or higher. When their overall grade point average rises to 2.0 or higher, students are removed from academic probation. Students on dismissal status may be prohibited from attending DVC for up to two consecutive terms.

Progress probation

Students are expected to complete courses once they register for them. If a student's cumulative record shows that he or she has enrolled in at least 12 units, that student must successfully complete more than 50 percent of all those units, or else be placed on progress probation. Students are placed on progress probation if the number of units given a "W," "I," or "NP" on the student's transcript amounts to at least 50 percent of the units attempted (this includes letter grades and units assigned the symbols "W," "I," "P," "NP," "IP," or "RD"). Students on stage one probation will be blocked from enrollment in future semesters and are required to complete the online student success workshop and complete a short quiz or schedule a meeting with a counselor. Students on stage two probation will be blocked from enrollment in future terms until they have either arranged a meeting with a counselor to develop a plan for improvement or complete the online student success workshop and complete a short quiz.

Progress dismissal

Students are subject to progress dismissal if, after they have been on progress probation for two consecutive terms, they do not complete more than half of the units attempted in the current term. When students complete more than half of their cumulative attempted units, they are removed from probation. Students on dismissal status may be prohibited from attending DVC for up to two consecutive terms.

Appeals and readmission

Students who are placed on probation or dismissal are notified in writing. The notification includes the process for appealing the dismissal to the dean of counseling and enrollment services or SRC dean. Dismissed students who wish to appeal their dismissal status must file a "request for reinstatement" form with the dean of counseling and enrollment services and meet with a counselor and develop an educational plan. Extenuating circumstances that would allow students to successfully appeal dismissal might include, but are not limited to, health problems, family emergency, or extreme change in financial situation.

STUDENT RIGHTS AND RESPONSIBILITIES

Academic integrity policy

Diablo Valley College is committed to creating an environment where student achievement is championed and celebrated. Because the college values academic integrity as an essential component of academic excellence, students are expected to be truthful and ethical in their academic work. Commitment to academic integrity is the responsibility of every student and faculty member at Diablo Valley College.

Faculty and students come from a variety of backgrounds and cultures, giving rise to different understandings of moral and ethical behavior. Faculty should clearly state well-defined standards to reduce uncertainty and clarify expectations.

Academic dishonesty is defined as: an act of deception in which a student claims credit for the work or effort of another person or uses unauthorized materials or fabricated information in any academic work. Academic dishonesty is a violation of the DVC Student Code of Conduct and will not be tolerated. Academic dishonesty diminishes the quality of scholarship at Diablo Valley College and hurts the majority of students who conduct themselves honestly.

Acts of academic dishonesty include, but are not limited to, the following:

Cheating - unauthorized copying or collaboration on a test or assignment, or the use or attempted use of unauthorized materials;

Tampering - altering or interfering with evaluation instruments and documents including transcripts;

Fabrication - falsifying experimental data or results, inventing research or laboratory data or results for work not done, or falsely claiming sources not used; or falsifying participation in a class in any way;

Plagiarism - representing someone else's words, ideas, artistry, or data as one's own, including copying another person's work (including published and unpublished material, and material from the Internet) without appropriate referencing, presenting someone else's opinions and theories as one's own, or working jointly on a project, then submitting it as one's own;

Assisting - assisting another student in an act of academic dishonesty, such as taking a test or doing an assignment for someone else, changing someone's grades or academic records, or inappropriately distributing exams to other students.

Freedom of expression policy

It is the policy of the district and DVC to allow and protect reasonable and legal expressions, speeches and actions according to federal and state laws and Education Code section 76120. Students have the right to exercise free expression, including the use of bulletin boards, the distribution of printed materials and the wearing of buttons, badges or other insignia. The policy excludes expression that is obscene, libelous or slanderous according to current legal standards or that incites students to create a clear and present danger or to commit unlawful acts on community college premises or damage to persons or property. Inciting students to riot, or the violation of lawful community college regulations or the substantial disruption of the orderly operation of the community college, is also prohibited. Copies of the district and college policies are available at the Student Life Office.

Instructional material policy

Students enrolled in credit or non credit courses and programs may be required to provide certain instructional and other materials including, but not limited to textbooks, tools, equipment and clothing. A "materials fee" may be charged if the instructional and other materials are used in the production of an 'end product' that has continuing value to the student outside the classroom setting. Excerpted from Board policy 5017.

Matriculation rights and responsibilities

Student rights

The student has the right to the following matriculation services: admissions, assessment, orientation, advisement/counseling, and follow-up services (when needed).

Diablo Valley College students are guaranteed the following rights under the State of California Matriculation Regulations:

1. **Prerequisites:** A student may challenge a required course prerequisite as long as they meet the challenge conditions. (Please refer to the "prerequisite" section, page 17.)
2. **Complaints:** A student may file a complaint if he or she believes DVC has failed to make a good faith effort to develop an educational plan or provide specified services once the student has declared a specific educational goal. Title 5 Section 55525(d).

Student responsibilities

As part of the State of California Title 5 Matriculation Regulations, Section 55530 (d), all students are expected to participate in the matriculation process unless they are exempt (see “exemption” below) or waive the right to participate (see “waiver, appeal, and complaint procedures” below). Through the matriculation process at Diablo Valley College, students agree to the following responsibilities:

- to express at least a broad educational intent at the time of registration and state a specific educational goal upon completion of 12 units of coursework;
- to complete a first-term individual educational plan with the assistance of a counselor prior to registering for courses. This is usually done in the orientation and advising class (Counseling 095) for new students;
- to attend and complete courses: all students are expected to attend their classes regularly, complete assigned coursework on time and complete their courses each term. Students are expected to maintain regular progress toward their educational goal;
- to seek counseling at least once per term and as needed to review, update, and expand their educational plans and goals. It is particularly important for the following students to seek counseling:
 - Students on academic or progress probation,
 - Students enrolled in developmental courses, (generally achieved through counselor visits to such classes during the term or can be achieved in consultation with the instructor or instructor advisor in the department);
 - Students who have not declared an educational goal. Such students are sent a letter explaining options available in identifying and updating their educational goal.

Exemption

Some students may choose to be exempted from assessment, orientation or counseling. Typically students seeking an exemption from matriculation services meet one of the following criteria. The student:

- has earned an associate degree or higher;
- is enrolled in a job-related course;
- has one of the following educational goals: to learn or update job skills, to maintain certificate or license, or to pursue a special personal interest;
- is enrolled in six units or less.

Waiver, appeal, and complaint procedures

Students who wish to request waivers or file appeals or complaints on the basis of their Title 5 Matriculation Rights must follow the sequence of the steps outlined. (Students filing other types of complaints or alleging discriminatory practices should follow the procedures listed in the Student Code of Conduct and Student Disciplinary and Due Process Procedures.)

1. Initial review of waiver, appeal, or complaint
 - a. The student should contact the office of the dean of counseling and enrollment services and complete an “appeal or request for waiver” form or file a complaint regarding matriculation rights.
 - b. The dean or designee may contact the student and schedule a meeting to discuss the problem and/or inform the student of the decision.
 - c. In the event that the appeal or request for waiver is not granted, the student will be advised of his/her rights to further appeal and the correct procedures to follow.
2. Appeal to the vice president of student services or designee.
 - a. If the initial appeal or request for waiver is not granted and the student does not accept this decision, the student may submit the initial form to the vice president of student services for further review.
 - b. The vice president of student services or designee will review the appeal and may meet with the student if deemed necessary.
 - c. The vice president of student services or designee will inform the student of the decision concerning the appeal or request for waiver.

Sexual harassment policy

It is the policy of the college to provide a work and study environment free from sexual harassment. The campus community should be aware that the college will not tolerate any conduct that constitutes sexual harassment and will take measures to ensure compliance with all applicable federal and state regulations. Formal complaints may be filed with the district, using the district unlawful discrimination form.

Sexual harassment refers to sexually oriented verbal or nonverbal behavior that is not welcome, personally offensive, debilitates morale, and interferes with the behavioral effectiveness of members of the campus community. Sexual harassment is discriminatory and unlawful.

Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute sexual harassment when (1) submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or education, (2) submission to or rejection of such conduct by an individual is used as the basis for academic or employment decisions affecting that individual, (3) such conduct has the purpose or effect of substantially interfering with an individual's academic or professional performance or creating an intimidating, hostile, or offensive employment, educational, or living environment.

Accountability for compliance with this policy rests with all members of the campus community. The president's designee shall take appropriate steps to disseminate this policy, and the campus community shall be regularly informed of the policy.

Any member of the campus community who believes he or she has been sexually harassed should promptly report the facts of the incident or incidents and the name or names of the individual or individuals involved to the president's designee. All such claims will be investigated and appropriate action will be taken. Please note that sexual harassment is a violation of the law; should an individual choose to proceed through the district, substantiated complaints may result in disciplinary action. For more information about the sexual harassment policy, please see: www.dvc.edu/harassment.

References/authority: Title VII, Section 703; Title IX of the Education Amendments of 1972. Procedures for complaints may be obtained from the office of the vice president of student services or from the SRC Student Services Office.

Student Code of Conduct - Student Services Procedure 3027

I. Introduction

The Student Code of Conduct is a statement of the Contra Costa Community College District's expectations regarding student standards of conduct, both academic and nonacademic. Students are expected to obey all laws and district policies and regulations. Students shall be subject to discipline for violation of these laws, policies, and regulations. Student misconduct may also be subject to other regulations of the district, including but not limited to regulations regarding complaints of harassment and discrimination.

II. Definitions

For the purpose of these rules and regulations, the following words and terms are defined as follows:

- A. "Student" shall mean all persons enrolled in any classes at the colleges in the district, regardless of where classes are taught, whether they are enrolled full- time or part-time, for credit or non-credit or not-for credit or contract education, and whether or not s/he is planning to earn a degree, certificate of achievement or other certification. Persons who are enrolled in online or hybrid classes are also considered 'students'. Persons who are not officially enrolled for a particular term, but who have been admitted to the college and enroll in classes from time to time, and have a continuing relationship with the college are considered 'students'.
- B. "Governing Board" shall mean the Governing Board of the Contra Costa Community College District.
- C. "District" shall mean the Contra Costa Community College District, including but not limited to its administrative staff and each of its colleges.
- D. "College" shall mean a college operated and maintained by the district.
- E. "Member of the College Community" shall mean the District Trustees, the academic personnel, support staff, and administrative personnel of the district, the students of the district and any other person while on district or college property or at a district or college function or activity.
- F. "Day" shall refer to a college instructional day unless otherwise noted
- G. "Good Cause" as defined in Education Code, Section 76033 includes, but is not limited to the following offenses:
 - 1. Continued disruptive behavior, continued willful disobedience, habitual profanity or vulgarity, or the open and persistent defiance of the authority of, or persistent abuse of, college personnel.
 - 2. Assault, battery, or any threat of force or violence upon a student or college personnel.
 - 3. Willful misconduct which results in injury or death of a student or college personnel or which results in cutting, defacing, or other injury to any real or personal property owned by the district.
 - 4. Use, sale, or possession on campus of, or presence on campus under the influence of any controlled substance, or any poison classified as such by Schedule D in section 4160 of the Business and Professions Code.
 - 5. Willful or persistent smoking in any area where smoking has been prohibited by law, by regulation of the Governing Board, or by college policy.
 - 6. Persistent serious misconduct where other means of correction have failed to bring about proper conduct.
 - 7. Other behavior that may warrant disciplinary action.

- H. "Sexual harassment" is unwelcome conduct of a sexual nature, including (but not limited to) unwelcome sexual advances, requests for sexual favors, and other verbal, nonverbal, or physical conduct of a sexual nature.
- I. "Sexual violence" means any physical sexual acts perpetrated against a person's will or where a person is incapable of giving consent due to the victim's use of drugs or alcohol. An individual also may be unable to give consent due to minority/or an intellectual or other disability. A number of different acts fall into the category of sexual violence, including rape, sexual assault, sexual battery, and sexual coercion. All such acts of sexual violence are forms of sexual harassment.
- J. "Complainant" shall mean any member of the college community (student, faculty or staff member) who submits a charge alleging that a student violated this Code. A complainant who accuses a student of sexual harassment or sexual violence and who believes they are a victim of these prohibited actions will be guaranteed the same rights as the student accused, including the right to present witnesses and other evidence and to be accompanied by an advisor at a hearing, the right to be notified of the outcome of the complaint and the same appeal processes as are provided to the accused student. Complainants may not be entitled to know the exact level of discipline imposed due to privacy rights.
- K. "Preponderance of the evidence" standard means the greater weight of the evidence (i.e. it is more likely than not that misconduct occurred).
- L. "Hate violence" means any act of physical intimidation or physical harassment, physical force or physical violence, or the threat of physical force or physical violence, that is directed against any person or group of persons, or the property of any person or group of persons because of ethnicity, race, color, national origin, religion, sex, sexual orientation, gender identity expression, disability or political or religious beliefs of that person or group.

III. Grounds for disciplinary action

- A. Students shall conduct themselves consistent with the Student Code of Conduct while on campus or participating off campus in online or hybrid classes, or at college sponsored events or programs, including but not limited to field trips, student conferences, debate competitions, athletic contests, club-sponsored events, and international study programs, regardless of location. Students shall also conduct themselves consistent with the Student Code of Conduct in any matter related to school activity or attendance. Students shall be suspended or expelled only for good cause.

The college may have an obligation to respond to student-on-student harassment that initially occurred off campus. If a student files a complaint with the college, regardless of where the conduct occurred, the college must process the complaint in accordance with its established procedures, if the complaint relates to college activities. Because students often experience the continuing effects of off-campus harassment in the educational setting, colleges should consider the effects of off-campus conduct when evaluating whether the district has jurisdiction to process the complaint. The college should take steps to protect a student who was assaulted off campus from further harassment or retaliation from the perpetrator and his or her associates, if the district has jurisdiction over the matter.

- B. Misconduct that constitutes grounds for disciplinary action includes, but is not limited to:
 - 1. Acts of academic dishonesty, including, but not limited to:
 - a. cheating defined as unauthorized copying or collaboration on a test or assignment, or the use or attempted use of unauthorized materials;
 - b. tampering defined as altering or interfering with evaluation instruments or documents;
 - c. fabrication defined as falsifying experimental data or results, inventing research or laboratory data or results for work not done, falsely claiming sources not used or fabricating or falsifying documentation to try to change a class grade
 - d. lying;
 - e. plagiarism defined as representing someone else's words, idea, artistry, or data as one's own, including copying another person's work (including published and unpublished material, and material from the Internet) without appropriate referencing, presenting someone else's opinions and theories as one's own, or working jointly on a project, then submitting it as one's own; or
 - f. assisting others in an act of academic dishonesty, defined as assisting another student in an act of academic dishonesty, such as taking a test or doing an assignment for someone else, changing someone's grades or academic records, or inappropriately distributing exams to other students;
 - 2. Other forms of dishonesty, such as lying, plagiarism, knowingly furnishing false information, or reporting a false emergency to any college official, faculty or staff member or office or to the district;

3. Forgery, alteration, misappropriation or theft, misuse of any district or college document, record, key, electronic device, or identification including, but not limited to, unauthorized grade changes and forged signatures on official college forms;
4. Misrepresentation of oneself or of an organization to be an agent of the district;
5. Obstruction or disruption on or off district property of teaching or of the district's educational process, administrative process, disciplinary procedures, or other district functions and activities, on or off district property;
6. Disruptive or abusive behavior, such as verbal harassment, habitual profanity or vulgarity, physical abuse, hate violence, intimidation, bullying, hazing, or stalking of any member of the college community. Harassment includes the infliction of psychological and/or emotional harm upon any member of the college community through any means, including but not limited to e-mail, social media/networking, text messages, and other technological forms of communication. When harassment, abuse, intimidation and bullying are motivated by bias against students based on their actual or perceived race, ethnicity, color, national origin, sex, disability, sexual orientation, gender identity/expression or political or religious beliefs, students found responsible for violating the Code may receive enhanced sanctions;
7. Vandalism, graffiti, or other willful misconduct which results in cutting, defacing, or other damages to any real or personal property owned by the district or a member of the college community;
8. Assault, battery, violence or threat of violence, or any willful misconduct which results in an injury or death of a student or district personnel or behavior that threatens the health and safety of any member of the college community;
9. Theft of district property, or property in the possession of, or owned by, a member of the college community;
10. Violation of district or college policies or regulations including but not limited to those concerning the formation and registration of student organizations, the use of college facilities or the time, place, and manner of public expression or the distribution of leaflets, pamphlets, or other materials;
11. Failure to comply with the directions of the district or college officials acting in the performance of their duties and/or failure to identify oneself to these persons when requested to do so;
12. The use, sale, distribution, or possession on campus of, or presence on campus under the influence of, any controlled substances, or any poison classified as such by Schedule D section 4160 of the Business and Professions Code or other California laws on district property or at any district-sponsored event. Use of a prescription drug if the prescription was not issued to the student, or the distribution or sale of a prescription drug to a person to whom the prescription was not originally issued. Intentionally or recklessly inhaling or ingesting substances (e.g., nitrous oxide, glue, paint, etc.) that will alter a student's mental state is also prohibited. Possession of drug paraphernalia including, but not limited to, bongs or glass pipes. This regulation does not apply when the person named on the prescription possesses the drugs or narcotics or when the drugs or narcotics are permitted for and are being used in research, instruction, or analysis;
13. Possession, consumption, sale, distribution or delivery of any alcoholic beverage in college buildings or on college grounds, or at college-sponsored or supervised activities, regardless of their location, unless authorized by college officials;
14. Possession or use of explosives, dangerous chemicals, or deadly weapons on district property or at a campus function, without prior authorization of the college president;
15. Engaging in lewd, indecent, or obscene behavior on district-owned or controlled property or at a district-sponsored or supervised function;
16. Rape, date rape, sexual harassment, sexual violence, sexual assault, or threat of an assault upon a student or member of the college community on district property, or at a college or district-sponsored or supervised function;
17. Unauthorized use of, or misuse of district property, including, but not limited to, unauthorized possession, duplication or use of district keys and/or unauthorized entry into, unauthorized use of, or misuse of district property;
18. Willful or persistent smoking in any area where smoking has been prohibited by law or by regulation of the Governing Board, or college policy;
19. Knowingly assisting another person in the commission of a violation of the Student Code of Conduct;
20. Misuse of computers and networks which includes but is not limited to utilizing an unauthorized account, password, campus network, interfering with normal computer operations, circumventing data protection schemes or uncovering security loopholes, or violating terms of the software agreements;

21. Willful disruption of the orderly operation of the campus;
22. Leading or inciting others to disrupt scheduled and/or normal authorized activities;
23. Obstruction of the free flow of pedestrian or vehicular traffic on college premises or at college sponsored or supervised events;
24. Unauthorized use of electronic or other devices to make an audio or video record of any person while on college premises without his/her prior knowledge, or without his/her effective consent when such a recording is likely to cause injury or distress. This includes, but is not limited to, surreptitiously taking pictures of another person in a gym locker room or a restroom
25. Any other cause identified as good cause by Education Code section 76033, not identified above; or any applicable Penal Code sections, or other applicable local, state, or federal laws; and
26. Any other ground constituting good cause.

C. Violation of parking laws, regulations, or rules shall not be cause for the removal, suspension, or expulsion of a student (Ed. Code § 76036).

D. Nothing in these procedures shall preclude a student with a disability from receiving appropriate accommodations as identified by Disability Support Services.

IV. Types of disciplinary action

The following discipline may be imposed, individually or in various combinations, on any student found to have violated the Student Code of Conduct:

Warning:

A warning is a written or oral notice to the student that continuation or repetition of certain conduct may be result in further disciplinary action.

Restitution:

Restitution is reimbursement by the student for damage to, loss of or misappropriation of property. Reimbursement may take the form of appropriate service by the student to repair property or otherwise compensate for damage.

Projects and assignments:

Projects and assignments may include educational projects, service to the college, and other related discretionary assignments.

Disciplinary probation:

Probation is a status imposed for a specific period of time in which a student must demonstrate his or her conduct conforms to district standards of conduct as set forth in these regulations. Conditions may be imposed at the discretion of the district or the president's designee. Misconduct during the probationary period or violation of any conditions of the probation may result in more serious disciplinary action, such as loss of privileges, suspension, or expulsion.

Loss of privileges:

Loss of privileges is the denial of extra-curricular activities or other special privileges for a designated period of time. Violation of any conditions or campus regulations during the period of sanction may result in far more serious disciplinary action, such as suspension or expulsion.

Removal:

Removal of a student from class by an instructor or with the assistance of Police Services, if necessary.

Suspension:

Suspension is a separation from the district for a designated period of time after which the student will be eligible to return. A suspension may consist of

- a. a period of time from one or more classes for a period up to ten (10) days of instruction;
- b. from one or more classes for the remainder of the school term; and
- c. from all classes or activities of the college for one or more terms for up to three years.

Expulsion:

Expulsion is the permanent termination of student status by the Governing Board for good cause when other means of correction fail to bring about proper conduct or when the presence of the student causes a continuing danger to the physical safety of the student or others. A student who is expelled is prohibited from participating in any college activities or programs and from entering district premises.

Revocation of degree or certification:

A degree or certificate awarded from the college may be revoked for fraud, misrepresentation, or other violation of college standards in obtaining a degree or certification, or for other serious violations committed by a student prior to graduation.

V. Reciprocity of sanctions

During a period of suspension or expulsion, a student shall not be enrolled in any other college within the district. Disciplinary actions or sanctions shall apply to the student at all district colleges.

VI. Conduct related to college

After a hearing the president's designee may impose an immediate suspension on a student when such action is required in order to protect property, safety, and to ensure the maintenance of order on the campus or at a campus function.

No student may be removed, suspended, or expelled unless the conduct for which the student is disciplined is related to college activity or college attendance.

VII. Record of disciplinary action

In accordance with Education Code section 76220, Community College Districts shall establish, maintain and destroy student records according to regulations adopted by the Board of Governors of the California Community Colleges. The president's designee will create a record of disciplinary actions, along with relevant supporting documents and evidence. Consistent with the Family Educational Rights and Privacy Act and District Student Services Procedure 3009, this record shall be maintained as a confidential student education record and may not be released without the permission of the student, except as permitted by law and policy. The student shall have a right to inspect the record and to challenge the contents. Disciplinary records shall be retained in a manner consistent with federal and state law and district policy, and may be destroyed in a manner consistent with District Administrative Procedure 1900.01.

In accordance with Education Code section 76234, whenever there is included in any student record information concerning any disciplinary action taken by the college or district in connection with any alleged sexual assault or physical abuse or any conduct that threatens the health and safety of the alleged victim, the alleged victim of the sexual assault or physical abuse shall be informed within three (3) days of the results of any disciplinary action by the college and the results of any appeal, provided the student keeps this information confidential.

VIII. Removal by instructor

An instructor, for good cause, may remove a student from his or her class for the day of the removal and the next class meeting. (Ed. Code §§ 76032 and 76033.)

A. Procedures before the removal

1. The instructor shall notify the student of the instructor's consideration of the removal from class and the reasons for the proposed removal.
2. The instructor may remove the student from the classroom immediately. Under normal conditions, the instructor should permit the student an opportunity to present a rebuttal to the accusation or otherwise offer relevant comment on the proposed removal. There need be no delay between the time notice is given to the student and the time of such a review.
3. The instructor shall decide whether or not to proceed with the proposed removal after hearing the student's explanation and considering all of the information relative to the issue. There need be no delay between the time notice is given to the student and the removal.
4. The decision may be given to the student either orally or in writing.
5. The instructor's decision is final and may not be appealed.

B. Procedures after the removal

1. Immediately following the removal, the instructor must notify the college president or president's designee of the removal.
2. If the student removed is a minor, the college president or president's designee shall ask the parent or guardian of the student to attend a parent conference regarding the removal as soon as possible. If the instructor or the parent or guardian so requests, a college administrator shall attend the conference.
3. The instructor may request that the student meet with the college president or president's designee, within three (3) days of removal, prior to returning to class.
4. During the period of removal, the student shall not be returned to the class without the concurrence of the instructor.
5. After the student returns to class, if there are additional incidents of disruption or other behavior constituting good cause, the faculty member will provide the necessary documentation to the president's designee so that more serious consequences, such as suspension from this particular class or from all classes for the rest of the semester, can be assigned.

IX. Preliminary procedures for suspension by president's designee

The following procedures shall be taken before suspension except in the event that an emergency/interim suspension is made as set forth in Section XIV.

A. Administration. The president's designee shall administer these procedures and take appropriate action, subject to the approval of the college president and the Governing Board if required herein or otherwise by law.

B. Disciplinary action that may be imposed. The president's designee may suspend or impose a lesser sanction on a student. A suspension may consist of a period of time as follows:

1. From one or more classes for a period up to ten (10) days of instruction;
2. From one or more classes for the remainder of the school term;
3. From all classes and activities of the college for one or more terms. A suspension shall not exceed three (3) years.

C. Reporting of conduct. Alleged student misconduct shall be reported to the president's designee. The president's designee shall be the vice president of instruction or the Senior Dean of Student Services at Contra Costa College, the Dean of Student Life at Diablo Valley College, and the Senior Dean of Student Services at Los Medanos College. Other officials may be designated as the president's designee, whenever necessary for the efficient operation of the district.

D. Investigation. Upon receiving a report of alleged

student misconduct, the president's designee shall initiate an investigation.

- E. Notice.** Before imposing discipline, the president's designee shall give or make reasonable efforts to give the student oral or written notice of the reason for the proposed disciplinary action. If the student is a minor, the president's designee shall also notify the parent or guardian of the investigation and charges.
- F. Preliminary hearing.** Within a reasonable period of time (normally within five (5) days following the delivery to the student of the notice referred to above), the president's designee shall offer the student an opportunity to attend a meeting ("Preliminary Hearing") at which time the student may present a rebuttal to the accusation or otherwise offer relevant comment on the proposed discipline. There need be no delay between the time of the notice given to the student and the time of the meeting. If the student fails to arrange a preliminary hearing (or if he/she fails to appear for a preliminary hearing within five` days of the service or mailing of the notice or if he/she fails to appear for the preliminary hearing he/she has arranged), the decision of the president's designee will be final and not subject to a further Appeal Hearing.
- G. Determination after preliminary hearing.** Based on the evidence presented, The president's designee shall decide whether or not to proceed with the proposed suspension and/or to recommend expulsion after hearing the student's explanation and considering all of the information. If the decision is to suspend for up to five (5) days, the president's designee may inform the student of the decision and send a written confirmation to the student's last known address within five (5) working days. The confirmation shall include a statement that the decision to impose a suspension for five (5) days or less, or a lesser sanction, is not appealable. If the decision is to suspend for more than five (5) school days or to recommend expulsion, the president's designee shall send the student a written notice via personal delivery or certified mail to the student's last known address as set forth below.
- H. Notice to the college president.** The president's designee shall report any disciplinary action imposed to the college president.
- I. Notification after a suspension of more than five (5) days.** If the president's designee imposes a suspension of more than five (5) days, the president's designee shall promptly send the student a letter of notification that is hand delivered or sent via certified mail to the student's last known address. The notification shall include:
1. A statement of the charges, the reason for the suspension or recommended expulsion offer, and a description of facts related to the misconduct, including the evidence against the student, the date of the incident(s), time of the incident(s), and location of the offense(s).
 2. A copy of the Student Code of Conduct and Board

Policy.

3. An explanation that a student who has been suspended for more than five (5) days is entitled to appeal the decision and has a right to a further hearing ("Appeal Hearing"). The notification shall also state that a request for an Appeal Hearing shall be filed within five (5) business days of the service or mailing of the notification, whichever is earlier. The written request for an appeal hearing must be submitted to the president's designee, and must cite the specific ground(s) for the appeal (from those listed below), and provides information which substantiates the ground(s) on which the appeal is being made.
 4. Grounds for appeal - A student may appeal the decision of the president's designee on grounds that:
 - a. Fair consideration was not provided to the student, (i.e., there is evidence that some aspect of the hearing was prejudicial, arbitrary, or capricious).
 - b. New and significant information, not reasonably available at the time of the initial hearing, has become available.
 - c. The sanction or remedy imposed is not in due proportion to the nature and seriousness of the offense. Any evidence supporting these grounds must be included in the request for an appeal hearing.
 5. A statement that the student has the right to be accompanied at an "Appeal Hearing" by an on-campus advisor of his or her choice. If the student decides to be accompanied by an advisor, the name and address of that advisor must be submitted to the president's designee at the time the appeal is filed.
 6. The president's designee may note that he or she will also recommend expulsion.
 7. The Notification shall include the date, time, and location of an Appeal Hearing if requested by the student.
- J. Student right to appeal a suspension of more than five (5) days.** The student may accept a suspension in excess of five (5) days without admitting the conduct charged. In such a case, the decision of the president's designee will be final and not subject to a further Appeal Hearing. Should the student not accept a suspension in excess of five (5) days, the student has a right to appeal. A suspension appeal must be filed by the student no later than five (5) business days from the date the notification letter is personally served or mailed.
- K. Schedule of hearing.** The president's designee shall schedule an Appeal Hearing no later than ten (10) working days from the date of the suspension.

X. Hearing authority for appeal hearing

- A. The college president will assign either an Administrative Hearing Officer or may utilize a Student Discipline Committee (“Committee”) to conduct Appeal Hearings at the college (“Hearing Authority”).
- B. An Administrative Hearing Officer shall be a college official.
- C. A Committee shall include: one faculty member, one administrator or manager, and one student. The selection process for the Committee, if any, will normally occur at the beginning of each academic school year.
 - 1. The Academic Senate will select a faculty representative and alternate(s). Vacancies will be filled by an action of the Academic Senate.
 - 2. The Associated Student Body will select a student representative and alternate(s). Vacancies of student members shall be filled by an action of the Associated Student Body.
 - 3. The college president will select the administrative or management representative and alternate(s). The administrative or management representative will serve as the Committee Chair.
The student or the college employee shall notify the Committee if he or she has a conflict of interest because he or she is involved in the discipline matter, or has a personal relationship with any of the involved parties, and, therefore, is unable to serve as a neutral party.
 - 4. Alternate faculty, administrative, and student members shall be appointed to ensure that a standing committee can always be convened promptly.

XI. Appeal hearing procedures

- A. The president’s designee shall submit to the Hearing Authority: a description of the charges, notices, evidence, and a copy of the proposed decision. The president’s designee shall present relevant evidence regarding the alleged misconduct. The accused student may then present any relevant evidence. Each party may call, examine, and cross-examine witnesses. Written statements, if any, shall be submitted under penalty of perjury. The Hearing Authority may also question witnesses. Opening and closing statements shall be limited to five (5) minutes. The president’s designee shall speak first, followed by the student.
- B. The Hearing Authority shall rule on all questions of procedure and admission of evidence.
- C. Hearings need not be conducted in accordance with strict rules of evidence or formality of a court hearing.
- D. The Hearing Authority shall consider no evidence other than that evidence received at the hearing. Hearsay evidence may be used for the purpose of supplementing or explaining other evidence, but shall not be sufficient in itself, to support a finding.
- E. A student may be accompanied by an advisor of his

or her choosing, at the student’s request. The role of the advisor is passive in this procedure. The advisor may be present at the hearing and may counsel the student. The advisor may not address the Hearing Authority and shall not be permitted to participate in any way during the hearing except to offer counsel to the student. If the student decides to be accompanied by an attorney, the name and address of that attorney must be submitted to the president’s designee at the time the request for hearing is filed

- F. The Appeal Hearing shall be closed to protect the privacy and confidentiality of everyone involved unless the student and district agree in writing to have a public hearing at least five (5) days in advance of the hearing. A closed hearing will be closed to everyone except the following:
 - 1. The student charged.
 - 2. The Hearing Authority.
 - 3. An advisor for the student charged, if so desired.
 - 4. The president’s designee.
 - 5. A witness, while presenting evidence.
 - 6. An on-campus advisor for a witness while presenting evidence.
- G. An official audiotape recording of the hearing shall be kept. The record shall be the property of the district. The student charged may listen to the tape at a mutually agreeable location at the college. An accused student may, upon request, be provided a copy at his or her own expense.

XII. Hearing authority’s consideration and recommendation

Following presentation of the evidence, the Hearing Authority shall privately consider the evidence with all persons excluded. The Hearing Authority shall send a written report to the college president within five (5) working days of the termination of the hearing. The report shall contain the following information:

- A. A summary of factual findings and a determination that the accused student did or did not commit the act(s) charged.
- B. A finding that the student’s act(s) did or did not constitute a violation of the Student Code of Conduct.
- C. A recommendation for upholding or modifying the proposed discipline. The Hearing Authority may also recommend further investigation.

XIII. College president’s decision

- A. The college president shall reach a decision after reviewing the report submitted by the Hearing Authority. The college president may refer the matter back to the Committee or hearing officer for further clarification on details of the case, such as evidence and findings of fact. The college president may uphold the suspension, uphold the recommendation by the Hearing Authority, or adopt a lesser sanction, if appropriate. A written statement of the decision shall be sent via certified or registered mail to the student’s last known address within three (3) working days of the college president’s receiving the Hearing Authority’s recommendation.
- B. The decision of the college president to suspend or

impose a lesser sanction shall be final and not subject to further appeal.

- C. The college president shall report a disciplinary suspension of any student to the Governing Board at its next regular meeting after the suspension has been imposed. A copy of the suspension determination, including the reasons for the suspension, shall be placed in the student's permanent disciplinary record (not the transcript).
- D. If the college president determines that a student should be expelled, he or she will forward that recommendation through the Chancellor, to the Board of Trustees for determination.
- E. In the event that a college president is or will be unavailable for the making of a prompt decision, the college president may appoint an unbiased designee to act on the appeal.

XIV. Emergency interim suspension

- A. An emergency/summary suspension is an immediate suspension imposed upon a student for good cause. (Ed. Code § 66017)
- B. Notwithstanding the foregoing, the college president or the president's designee may impose an emergency/summary suspension. It is an extraordinary measure and shall be utilized when necessary to protect lives or property and to ensure the maintenance of order pending a hearing.
- C. A preliminary hearing shall be provided within ten (10) calendar days of an emergency/summary suspension. (Ed. Code § 66017.) The procedures set forth in Sections IX and X shall apply to the preliminary hearing and any appeal hearing.
- D. An emergency/summary suspension shall be reported to the Governing Board at its next regular meeting after such suspension has been imposed. A copy of the suspension may be placed in the student's permanent record at the discretion of the college president.

XV. Notification

The college president or president's designee shall, upon suspension or expulsion of any student, notify the appropriate law enforcement authorities of the county or city in which the school is situated of any acts of the student which may be in violation of section 245 of the Penal Code. (Ed. Code § 76035.)

XVI. Extensions of time

Calendar restraints may be extended with the agreement of both parties.

XVII. Expulsion

The Governing Board has the sole authority to expel a student. If the college president determines that a student should be expelled, he or she shall send the recommendation through the Chancellor to the Governing Board.

- A. Within 30 instructional days of the receipt of the

recommendation from the college president, and with the agreement of the Chancellor, the Governing Board shall conduct an appeal hearing in closed session with the accused student and the college president (or president's designee).

1. The hearing shall be closed to protect the privacy and confidentiality of everyone involved, unless
 - a. the accused student requests an open hearing, in writing, within 48 hours of being notified of the hearing, and
 - b. it is determined that holding the hearing in open session would not lead to the giving out of information concerning students which would be in violation of state or federal law regarding the privacy of student records.
2. A closed hearing will be closed to everyone except the following:
 - a. The student charged.
 - b. An advisor/advocate for the student charged, if so desired. If the student chooses to be accompanied by an attorney, the student must notify the district in writing of his/her intent to bring an attorney at least five (5) business days prior to the hearing. Failure to notify the district will result in a waiver of the right to be accompanied by an attorney, or a one month postponement of the hearing.
 - c. The college president and/or president's designee.
 - d. The Governing Board.
 - e. The Chancellor and/or district legal advisor.
 - f. The student's parent(s) or guardian, if the student is a minor.
- B. The accused student shall be notified in writing of the date and time of the hearing, and shall be provided with a copy of this policy. The notice shall be mailed via certified or registered mail, or served personally, if the student is a minor.
- C. The hearing shall be conducted in accordance with the following procedures:
 1. The president of the Governing Board will serve as chair of the hearing, and will rule on all questions of procedure and admission of evidence.
 2. Hearings need not be conducted in accordance with strict rules of evidence or formality of a court hearing
 3. Before commencement of the hearing, the Governing Board shall review a description of the charges, notices, evidence, findings, and a copy of the proposed decision from the college-level disciplinary appeal hearing. The Governing Board shall consider no evidence other than that evidence received in the hearing process.
 4. The college president (or the president's designee)

shall make a brief statement to the Governing Board, referring to relevant evidence regarding the alleged misconduct.

5. The accused student may then make a brief statement to the Governing Board and present any relevant evidence.
6. The statements shall be limited to five (5) minutes.
7. Upon completion of these statements, the Governing Board will have an opportunity to ask questions of both the student and the college president (or president's designee).
8. The Governing Board will conclude the hearing, dismiss the parties, and privately deliberate as to a decision.
9. The Governing Board shall issue a statement of decision including findings of fact and a determination that the accused student did or did not commit the act(s) charged, a finding that the student's act(s) did or did not constitute a violation of the Student Code of Conduct, and a decision as to whether the expulsion proposed by the president would be upheld or modified. The Governing Board may also recommend further investigation. Pursuant to Education Code section 72122, regardless of whether the matter is heard in open or closed session, the final action of the Governing Board shall be taken in open session, and the result of that action shall be a public record. The name of the student, however, shall not be released.
10. The Chancellor's Office will send a written statement of the Governing Board's decision via certified or registered mail to the student's last known address within three (3) working days of the hearing.
11. If the Governing Board's decision is unfavorable to the student, the student shall have the right to submit a written statement of his/her objections to the decision. This statement shall become a part of the student's records.
12. The decision of the Governing Board is final, and not subject to further appeal.
13. The hearing shall be electronically recorded. The record shall be the property of the district. The student charged may listen to the tape at a mutually agreeable location at the college. An accused student may, upon request, be provided a copy of the recording at his or her own expense.

Education Code, Sections 66017, 66300, 66301, 72122, 76030-76037, 76234

Historical annotation: adopted 03/02/04

Revised 6/17/08, 9/25/12

Related board policy: board policy 2056, 3012, 3013

Related procedures: student services procedures 3009, 3026, 3029

Student privacy rights

The Family Educational Rights and Privacy Act (FERPA) is designed to protect students from having their records released to persons or institutions without the student's written consent. FERPA also provides students with the right to review their education records to insure that no inaccurate or otherwise inappropriate information has been included in their file. If the student discovers that there is inaccurate information in their record, they can challenge the content of such record.

Under FERPA, post-secondary educational institutions are not required to provide parents access to the educational records of their children regardless of the student's age since all rights have been transferred to the student by statute.

FERPA rights extend to both current and former students and are implemented as follows:

Review of records: students may request to review their records by filing a written request with the Admissions and Records Office. Within five working days the education records will be made available for inspection.

Directory information: directory information, as defined by the college, may be released without prior notice to the student unless the student provides a written notice to the Admissions and Records Office that they do not want such information to be released without their consent.

Directory information includes:

- student name,
- student participation in officially recognized activities and sports, including weight, height, and high school of graduation of athletic team members,
- degrees and awards received by students, including honors, scholarship awards, athletic awards, and dean's recognition.

For more information about FERPA regulations go to:

www.ed.gov/policy/gen/guid/fpco/ferpa/index.html

Student right-to-know and campus security act

It is the policy of the district to comply with the Student Right-to-Know and Campus Security Act (Public Law 101-542) signed into law November 8, 1990.

The district shall make available the completion or graduation rates of certificate or degree seeking, full-time students entering any of the colleges, to current students, and to each prospective student upon request prior to that student's enrolling or entering into any financial obligation, beginning July 1, 1993, and annually thereafter.

Students, faculty and staff may obtain information about campus crime and safety issues at www.4cd.edu/crpa/pd/crimereports/Forms/AllItems.aspx and www.4cd.edu/crpa/pd/righttoknow.aspx.

GRIEVANCE AND COMPLAINT PROCEDURES

Complaints about staff, managers, or faculty

Individuals who are unable to directly resolve an issue with any classified staff member or manager and wish to complain may contact that employee's supervisor to notify them of the issue and to seek appropriate resolution.

Individuals who are unable to directly resolve an issue with any faculty member and wish to complain may contact the appropriate department chair, whose responsibility it is to listen to student inquiries, complaints and grievances about department members and matters. The department chair will investigate and attempt to resolve matters on a department level. If the faculty member is also the department chair, direct the concerns to the academic dean.

Student grievance policy (non-instructional)

The Diablo Valley College staff is dedicated to serving particular educational needs, which can be appropriately met by a college functioning in accordance with the broad purposes and regulations set forth in the education code of California. Accordingly, any student who believes there has been a violation of the regulations as stated in Title IX of the Education Act of 1972 or Section 504 of the Rehabilitation Act of 1973 may initiate a grievance (see equal opportunity policy and grievance procedures, page 15). For further information, contact the office of the vice president of student services.

GENERAL COLLEGE POLICIES

DVC is “a drug-free” campus

The DVC Student Code of Conduct prohibits the possession, consumption, sale, distribution or delivery of any alcoholic beverage in college buildings or on college grounds, or at college-sponsored or supervised activities, regardless of their location, unless authorized by college officials. The code also prohibits the use, sale, distribution, or possession on campus of, or presence on campus under the influence of, any controlled substances, as listed in Schedules I through IV of Section 202 of the Controlled Substances Act (21 U.S.C. Section 812) on district property or at any district-sponsored event. This includes student participation in field trips, athletic competition and/or any activity sponsored by the college. Any violations will be cause for disciplinary action up to and including expulsion. For additional information about the health risks associated with the use of illicit drugs and the abuse of alcohol, and the applicable legal sanctions under local, state or federal law, please visit: www.dvc.edu/alcohol-drugs. Any student who needs information about substance abuse may consult a campus counselor who can provide the student with information about available treatment resources.

Parking policy

All campus parking requires a parking decal or a daily permit, which must be displayed on the student's vehicle. Parking permits are required 6 a.m. Monday through 5 p.m. Friday. Students may park only in student parking lots. Parking is available on a first-come, first-served basis, and having a permit does not guarantee that a student will find a parking space. Separate summer permits are also required. Parking permits are not required at the San Ramon Campus. For more information, contact police services, or visit www.4cd.edu/crpa/pd.

Service and other animals

Contra Costa Community College District fully supports students with disabilities who benefit from trained service animals. Per District Governing Board Policy 2058, individuals with a disability are permitted to use a trained service animal in all district facilities in compliance with state and federal law. Students using service animals should coordinate with Disability Support Services (DSS). To help ensure a safe and productive learning environment for all our students and the broader community, all other animals, including emotional support animals, are prohibited on all district property.

Tobacco-free policy

DVC is committed to promoting the good health of our students, staff, and broader community by providing a healthy environment in which to learn and work. Given the negative health impacts of tobacco and similar product use, per District Governing Board Policy 2045, DVC is designated as a tobacco-free institution. Therefore:

Smoking, smoking substitutes, smoke inducing devices, and vaping are considered a health hazard and are prohibited on all college property. This includes, but is not limited to, products containing tobacco or nicotine, e-cigarettes, cigars, clove cigarettes, smokeless tobacco, snuff, chew packets, hookah smoking, personal vaporizers/electronic smoking devices, marijuana, and controlled substances regulated under federal law.

The use of all smoking/tobacco/vaping products as defined is prohibited on campus grounds, playing fields, walkways, roadways, parking lots, in all vehicles on DVC property and in or around the perimeter of any building.

This policy shall apply to all students, employees, volunteers, vendors, consultants, agents, contractors, and visitors on DVC property as defined above. Consistent with Government Code 7597.1, the Governing Board has imposed fines and set enforcement standards for DVC in order to ensure a tobacco-free environment.

DVC recognizes the health hazards associated with tobacco addiction. DVC also recognizes the challenges faced by those addicted to tobacco products and therefore supports efforts of employees and students to quit using tobacco products. Any student who needs information about cessation programs may consult a college counselor, who can provide the student with information about available resources.

Adherence to our tobacco-free policy relies, in large part, on the initiative of students and staff to politely request that smokers comply and on the courtesy of smokers to acknowledge and observe the restrictions. DVC promotes the initiative of educating others about the hazards of smoking and will endeavor to educate rather than punish. In the absence of compliance, however, any student who violates the policy may be subject to citation and disciplinary measures in accordance with the provisions of the Student Code of Conduct and Governing Board policy. Visitors to DVC who do not comply with this policy may be cited and/or asked to leave DVC property.

TRANSFER, DEGREES AND CERTIFICATES

chapter three

catalog 2019-2020



Transfer information	47
Transfer to the California State University (CSU)	47
Intersegmental General Education Transfer Curriculum (IGETC)	48
Transfer to the University of California (UC)	48
Transfer to independent (private) and out-of-state colleges and universities	49
DVC associate degrees	49
Associate degree requirements for students entering fall 20	50
Option 1 – Diablo Valley College general education	52
Option 2 – IGETC – Intersegmental General Education Transfer Curriculum	54
Option 3 – CSU GE – California State University general education	56
DVC career education programs	58
DVC certificate programs and associate degrees	59



TRANSFER INFORMATION

Many of our students transfer to a four-year college or university after completing lower division courses at DVC. DVC has consistently been among the community colleges that transfers the most students to the University of California and to the California State University systems.

The key to our students' success is that they understand which transferable courses are required:

- for admission to their major;
- for general education at their chosen four-year college.

The requirements to transfer can be complex and necessitate that students seek strong advising to be assured the courses in which they enroll meet all their transfer college's requirements. Students are strongly encouraged to work with our counselors to plan their class schedules. This planning ensures that students complete needed courses at DVC in a timely manner and can reduce the time needed at the four-year college to attain a bachelor's degree.

Each four-year institution has its own basic pattern of lower-division requirements regarding both general education and specific majors. CSU and UC applicants must also meet admission, major, prerequisite, and transferable unit requirements. These requirements vary from college to college and often change from year to year. Therefore, in addition to using counseling services, students are also encouraged to take advantage of information available in the Career, Employment and Transfer Center, counseling, on college and university websites, in print materials, from college representatives, and in our workshops.

Transfer to the California State University (CSU)

To transfer as a junior to CSU, students must complete all of the following:

- at least 60 CSU transferable units with a 2.0 grade point average;
- at least 30 of those units must be GE courses from the IGETC or CSU GE requirements (listed as General Education Options 2 and 3 at the end of this chapter of this catalog);
- courses in Oral Communication, Written Communication, Critical Thinking and Mathematics/Quantitative Reasoning must all be completed with grades of "C" or higher. (Areas A and B4 from the CSU GE requirements or Areas 1 and 2 from IGETC).

CSU transferable courses

CSU transferable courses are designated in the course descriptions of this catalog. This information is also available at www.assist.org.

Impacted majors

The term impacted means that the program usually attracts many more applicants than it can accept. Consequently, there are special requirements and selection procedures for admission. Sometimes entire campuses such as Cal Poly San Luis Obispo and San Diego State University are impacted and all majors there require more than the minimum requirements for admission.

Impacted majors at individual CSU campuses can vary from year to year. Some examples of impacted majors are business administration and nursing.

Students should refer to the specific CSU campus website or www.assist.org or www.csumentor.edu for current information regarding impacted majors. Students are encouraged to meet with a counselor to determine if the major they are considering is impacted and what additional requirements are necessary to transfer.

CSU General education requirements (CSU GE)

Completion of the pattern of courses listed as General Education Option 3 on page 56 ensures that students will have completed all of their lower division general education courses toward their bachelor's degree at CSU. After a student has completed this pattern, he or she must request certification of its completion. With this certification, students will be responsible only for an additional nine upper division semester units in general education after transfer.

The current list of courses approved for meeting CSU GE is available in the DVC Counseling Center or at www.assist.org. See page 56 for more information about the pattern of courses listed as General Education Option 3.

Students may choose to complete the IGETC pattern of courses rather than CSU GE for CSU. This will have the same benefit as certification in CSU GE.

Students must submit a CSU GE or IGETC certification request form to the DVC Admissions and Records Office. Once the Admissions and Records Office evaluates the student transcript and certifies completion of requirements, students can request the CSU GE certification be sent to the CSU institution that they will be attending.

Intersegmental General Education Transfer Curriculum (IGETC)

The IGETC is a general education pattern that community college transfer students can use to fulfill lower-division general education requirements for the CSU or many colleges in the UC system without the need to take additional lower-division general education courses after transfer. Students who have attended a CSU, UC, independent or out-of-state college or university should consult with a counselor to determine if the use of IGETC is appropriate to reach their goal.

IGETC may not be the right choice for all students planning to transfer. The IGETC is just one way to fulfill the lower-division general education requirements of the UC or CSU.

It is not recommended for certain majors and some schools or colleges within UC do not accept IGETC. Students pursuing majors that require extensive lower-division major preparation may not find the IGETC option to be advantageous and may be better served by taking courses that fulfill the general education requirements of the UC or CSU college to which they plan to transfer. The IGETC will probably be most useful for students who want to keep their options open before making a final decision about transferring to a particular CSU or UC campus or a particular major. It is recommended that the entire IGETC pattern be completed prior to transfer. If a student does not complete all the general education requirements of the IGETC with a grade of "C" or higher before transferring, he/she will be subject to the regulations regarding general education requirements of the school or college of the campus to which he/she has been admitted.

The current list of courses approved for meeting IGETC is available in the DVC Counseling Center or at www.assist.org. Please see page 54 for information about the pattern of courses listed as General Education Option 2.

Students must submit an IGETC certification request form to the DVC Admissions and Records Office. Once the Admissions and Records Office evaluates the student transcript and certifies completion of requirements, students can request the IGETC certification be sent to the four-year institution that they will be attending.

Transfer to the University of California (UC)

To transfer as a junior to UC students must complete 60 units of UC-transferable college credit with a grade point average of at least 2.4 (2.8 for non-residents) including:

- two UC-transferable college courses (three units each) in English composition; and
- one UC-transferable college course (three units) in mathematical concepts and quantitative reasoning; and
- four UC-transferable college courses (three units each) chosen from at least two of the following subject areas: the arts and humanities, the social and behavioral sciences, and the physical and biological sciences.

All of the above courses must be completed with grades of "C" or higher.

Course requirements vary from one UC campus to the next. Therefore, students should work with a counselor to formulate a strategy for completing a particular campus's admissions requirements, major requirements, and general education requirements.

Letter graded and Pass (P) units

No more than 14 of the UC-transferable units may be graded "P". All courses required in a major must be taken for a letter grade. Contact a counselor for complete information.

UC transferable courses

UC-transferable courses are designated in the course descriptions of this catalog. This information is also available at www.assist.org.

Selection for admission to UC

Many campuses of the UC receive many more applicants to a particular major or program than it can accept. Consequently, there may be certain course requirements, special selection procedures and a higher grade point average requirement than the minimum 2.4 GPA admission requirement for UC transfers (2.8 GPA for non-residents). Students interested in transferring to UC are urged to consult with a counselor as soon as possible in order to determine the current requirements for the major to which they plan to apply. Knowledge of these requirements will maximize a student's chances of being selected by the UC campus of their choice.

Selective majors at the UC campuses vary from year to year. Refer to the specific campus website for current information on impacted majors. Information is also available at www.assist.org.

UC special admissions programs - Transfer agreement guarantee (TAG) agreement

The following UC campuses offer agreements that guarantee DVC students admission as transfer students provided they complete certain courses with a designated grade point average: Davis, Irvine, Merced, Riverside, Santa Barbara and Santa Cruz. The admission agreements offered by these campuses vary according to their requirements. Contact a counselor for complete information.

Transfer to independent (private) and out-of-state colleges and universities

Each year many DVC students go on to pursue their fields of interest and earn their degrees at private four-year institutions. Admission requirements and general education requirements vary from college to college. DVC has articulation agreements with a limited number of independent colleges and universities in the area and out-of-state. These can be obtained through the DVC Counseling Center. Some independent and out-of-state colleges and universities will accept IGETC and CSU GE to fulfill lower-division general education requirements. To make transfer to an independent or out-of-state college or university as smooth as possible, students are advised to contact the school directly early in their academic career to inquire about their admissions and general education requirements.

DVC ASSOCIATE DEGREES

DVC offers associate degrees in arts and science. These degrees are comprised of specific general education, major requirements and elective opportunities.

Goals of DVC's associate degrees

The goals of DVC's associate degrees are:

- the development of college-level skills;
- the acquisition of basic principles in the major disciplines and methods of discovery and problem solving;
- the formation of insights from several disciplines in order to make better-informed decisions;
- an appreciation of our multicultural heritage;
- an understanding of the values we hold so that we may use them to examine and guide our life choices.

Associate degree general information

The completion of the associate in arts or science degree provides students with strong academic skills and a broad, in-depth, general education. Students may explore their interests by selecting from different majors and electives as well as completing required general education courses. Associate degrees are college and state approved and accredited programs.

Non degree applicable courses

Units from courses numbered **below 100** cannot be applied to the degree. Non degree applicable course grades will not be included in calculating GPA for a degree.

Note: English and English as a Second Language courses numbered below 122/122A are not college level and have limited or no degree applicability. Only one of the following courses may be applied to the units required for an associate degree: ENGL-116, 117, 118, or ESL-117A. Students should carefully review each specific course description and meet with a counselor to ensure that the selected courses will satisfy requirements for transfer, degree, or certificate goals.

Meet with a counselor

It is very important to consult with a counselor before selecting courses. Counselors help students discover and examine all their available choices including determining whether there are courses whose requirements the student may have already met and initiating appropriate procedures to transfer credit or substitute coursework.

Graduation

It is the student's responsibility to file a petition for the associate degree by the deadline during the term in which he/she plans to complete the requirements. Diplomas are mailed at the end of each term. Please allow for 6-8 weeks processing time. Graduation ceremonies are held annually at the end of spring term.

Catalog rights and continuous enrollment for degrees and certificates

The college catalog specifies the requirements to earn a degree or certificate. The requirements in a specific academic year's catalog are the student's contract (catalog rights) with the college and that catalog defines what the student must complete to earn a degree or certificate.

Students may follow the catalog requirements that were in effect for the academic year when their attendance began at Diablo Valley College or follow the catalog requirements in effect during subsequent years of attendance provided that continuous enrollment has been maintained. Effective fall 2009, continuous enrollment is defined as enrollment in at least one course at Diablo Valley College, Los Medanos College or Contra Costa College in an academic year (fall, spring, summer). The student must receive a grade or notation on their transcript of "A," "B," "C," "D," "F," "P," "NP," "I" or "W" for the course. This continuous enrollment policy applies to students who are new, returning or continuing. Students completing a degree may choose a general education pattern under one academic year and major program requirements from a different academic year. The academic year(s) chosen must be declared on the application for the degree.

Former students who completed their requirements prior to leaving but failed to petition for degree or certificate may petition and choose the catalog requirements in effect at the time of petition or those in effect at the time of their last enrollment. Under special circumstances, exceptions to this catalog rights policy may be considered through a petition process initiated through the Admissions and Records Office.

The college reserves the right to change catalog rights or program requirements based upon legal mandate and accreditation standards at any time. Catalog rights do not apply to CSU GE or IGETC certification. Students must follow the CSU GE or IGETC pattern in effect when they petition for certification. Courses used for certification must be on the approved list at the time they are completed.

Associate degrees for transfer

California Community Colleges are now offering associate degrees for transfer to the CSU. These may include Associate in Arts (AA-T) or Associate in Science (AS-T) degrees. These degrees are designed to provide a clear pathway to a CSU major and baccalaureate degree. California Community College students who are awarded an AA-T or AS-T degree are guaranteed admission with junior standing somewhere in the CSU system and given priority admission consideration to their local CSU campus or to a program that is deemed similar to their community college major. This priority does not guarantee admission to specific majors or campuses.

Students who have been awarded an AA-T or AS-T are able to complete their remaining requirements for the 120-unit baccalaureate degree within 60 semester or 90 quarter units.

To view the most current list of Diablo Valley College associate degrees for transfer and to find out which CSU campuses accept each degree, please go to www.sb1440.org. Current and prospective community college students are encouraged to meet with a counselor to review their options for transfer and to develop an educational plan that best meets their goals and needs.

ASSOCIATE DEGREE REQUIREMENTS FOR STUDENTS ENTERING FALL 2019

To be awarded the associate degree students must meet the following requirements:

1. Degree requirements

A student is eligible for graduation with the associate in arts or associate in science degree after the satisfactory completion of a minimum of 60 units of degree applicable coursework with a grade point average of 2.0 (C) or higher.* At least 12 units of degree applicable coursework must be earned at DVC.

**Associate degrees for transfer require completion of 60 CSU transferable units.*

2. Major/area of emphasis requirements

This requirement is satisfied by completing the courses listed as the major under various disciplines in the college catalog.

3. General education requirements

Students may complete one of the three different general education patterns. General education Option 1 (DVC GE) is recommended for students who do not intend to transfer. Some courses may apply toward Option 2 and Option 3. Students intending to transfer to four-year institutions are advised to select Option 2 (IGETC) or Option 3 (CSU GE)

Option 1 – Diablo Valley College general education; 18 units of general education courses from areas I-IV.

Option 2 – IGETC – Intersegmental General Education Transfer Curriculum

Option 3 – CSU GE– California State University General Education

Option 1 DVC general education philosophy statement/general education program learning outcomes

A. English composition

In English composition, students will be able to compose coherent essays that demonstrate their ability to advance their own ideas and engage meaningfully with other sources. Through reading and critical thinking, students will learn to express their own opinions and use a variety of rhetorical strategies.

Students will be able to:

- write an essay of several paragraphs developing a central idea;
- use written and spoken language to communicate effectively;
- apply principles of critical thinking to reading and writing;
- identify the primary elements of an argument and determine their validity;
- discuss and analyze how meaning is created in works of fiction and non-fiction.

B. Communications and analytical thinking

Students will appreciate and use principles of communication and analytical thinking in whatever symbol system the student uses, such as mathematics, computer science, or written or spoken language.

Students will be able to:

- demonstrate logical and analytical thinking;
- express concepts clearly and precisely;
- critically evaluate the expression of concepts in a variety of forms

C. Mathematics comprehension

Students will understand mathematical abstraction and the use of mathematical symbols. They will be able to apply principles of mathematics leading toward an understanding and appreciation of the power and relevance of mathematics.

Students will be able to:

- recognize and examine mathematical relationships in the form of equations, graphs, and tables;
- apply mathematical methods to solve quantitative problems in the sciences, in their vocations, and in their daily lives as citizens and consumers;
- use appropriate technology to help solve mathematical problems.

II. Natural sciences

Students will recognize humans as seekers of fact and makers of meaning through abstraction and generalization.

By studying disciplines within biological and physical sciences, students will be able to:

- explain the basic concepts of biological and/or physical sciences;
- interpret and criticize information from a variety of sources to distinguish between opinions based upon preconception and controlled scientific experiments;
- solve problems in a wide range of contexts utilizing scientific methods.

III. Arts and humanities

Students will be able to evaluate the human experience as it is reflected and shaped by the arts and humanities.

Students will be able to:

- utilize an integrated and analytical approach to the study of art, humanities, languages, theater, film, literature and music within historical, political, and sociological contexts;
- critically examine the relationships between the ways people from different times and cultures live and the arts forms they create;
- evaluate aesthetic and cultural ideas and ethical standards by engaging the arts and humanities.

IV. Social and behavioral sciences

Students will better understand the cultural and social organizations in which they live as well as those of other human societies. Students will also be able to employ the scientific methodologies through which society and the greater world are examined and understood.

By studying disciplines within social and behavioral sciences, students will be able to:

- demonstrate an understanding of the complexity of social and behavioral phenomena;
- evaluate the scope and functions of social institutions;
- interpret and critically analyze information from a variety of sources to distinguish between generalizations based on preconceptions and those based on research.

DVC GE

2019-2020

Option 1 for DVC AA/AS GE

**Diablo Valley College
General Education Requirements - Option 1
Effective Fall 2019 through Summer 2020**

NOTE: Subject to change. See a counselor for more information.

Associate In Arts / Associate In Science

The requirements listed on this worksheet are those in effect for 2019-2020. A student remaining in continuous enrollment at Diablo Valley College, Contra Costa College, or Los Medanos College may elect to meet the graduation requirements in effect at the college from which the student will graduate either at the time the student first enrolled or any subsequent year of continuous enrollment. Continuous enrollment is maintained when a student receives an A, B, C, D, F, P, NP, I or W at DVC, CCC, or LMC in at least one class in each academic year (fall or spring or summer).

Basic Degree Requirements:

- 18 units of general education courses from Areas I through IV.
- Satisfactory completion of a minimum of **sixty (60)** units of degree-applicable coursework. Courses numbered **below 100** are non-degree applicable.
English 116, 117, 118; English as a Second Language 117A combined: maximum credit, one course.
- Overall grade point average of 2.0 (C) or higher in degree-applicable coursework. Note: Some majors may require a higher grade point average in major coursework. See catalog.
- At least 12 units of degree-applicable coursework earned at Diablo Valley College.
- Major requirements as listed in the catalog or addendum.

See a counselor or DVC catalog page 20 for use of AP, CLEP or IB exams to meet these requirements.

	Units												
<p>I. LANGUAGE AND RATIONALITY</p> <p>A. English Composition Grade of "C" or higher required. English 122, 122A</p>	3												
<p>B. Communications and Analytical Thinking</p> <p>Complete one course:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Art History 191</td> <td style="width: 50%;">Mathematics 124, 135, 135SP, 142, 144, 181, 182, 183, 191, 191SP, 192, 193, 194, 195, 292, 294</td> </tr> <tr> <td>Business 240, 250</td> <td>Philosophy 130, 170</td> </tr> <tr> <td>Communication Studies 121, 123</td> <td>Psychology 145, 214</td> </tr> <tr> <td>Computer Science 101, 110, 165, 255</td> <td>Sociology 122</td> </tr> <tr> <td>English 123, 126</td> <td></td> </tr> <tr> <td>History 122</td> <td></td> </tr> </table> <p>Math courses used to fulfill this requirement also meet course requirement in Area I.C. Mathematics Comprehension.</p>	Art History 191	Mathematics 124, 135, 135SP, 142, 144, 181, 182, 183, 191, 191SP, 192, 193, 194, 195, 292, 294	Business 240, 250	Philosophy 130, 170	Communication Studies 121, 123	Psychology 145, 214	Computer Science 101, 110, 165, 255	Sociology 122	English 123, 126		History 122		3-5
Art History 191	Mathematics 124, 135, 135SP, 142, 144, 181, 182, 183, 191, 191SP, 192, 193, 194, 195, 292, 294												
Business 240, 250	Philosophy 130, 170												
Communication Studies 121, 123	Psychology 145, 214												
Computer Science 101, 110, 165, 255	Sociology 122												
English 123, 126													
History 122													
<p>C. Mathematics Comprehension</p> <p>1. Complete one of the following courses with a grade "C" or higher, or transfer credit for an equivalent course from another accredited college or university.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Business 240</td> <td style="width: 50%;">Mathematics 114, 119, 119SP, 120, 120SP, 121, 124, 125, 135, 135SP, 142, 144, 181, 182, 183, 191, 191SP, 192, 193, 194, 195, 292, 294</td> </tr> <tr> <td>Engineering Technology 111</td> <td>Psychology 214</td> </tr> </table> <p style="text-align: center;">OR</p> <p>2. Satisfy one of the following:</p> <ul style="list-style-type: none"> • Receive a "C" grade or higher in both semesters of a high school Algebra II course. • Score at least 520 on the SAT Math test. • Score 24 or above on the math section of the ACT test. 	Business 240	Mathematics 114, 119, 119SP, 120, 120SP, 121, 124, 125, 135, 135SP, 142, 144, 181, 182, 183, 191, 191SP, 192, 193, 194, 195, 292, 294	Engineering Technology 111	Psychology 214	0-5								
Business 240	Mathematics 114, 119, 119SP, 120, 120SP, 121, 124, 125, 135, 135SP, 142, 144, 181, 182, 183, 191, 191SP, 192, 193, 194, 195, 292, 294												
Engineering Technology 111	Psychology 214												

		Units
II. NATURAL SCIENCES		3-5
Complete one course:		
Anthropology 115, 140	Geography 120, 140	
Astronomy 110, 120, 128	Geology 120, 121, 125, 130	
Biological Science 101, 102, 107, 116, 117, 119, 120, 126, 130, 131, 139, 140, 146, 161, 162, 170, 171	Oceanography 101, 102	
Chemistry 106, 107, 108, 109, 120, 121, 226, 227	Physical Science 112	
	Physics 110, 113, 120, 121, 129, 130, 230, 231	
III. ARTS AND HUMANITIES		3-5
Complete one course:		
Arabic 121	German 121, 220, 221, 230, 231	
Architecture 156, 157, 158, 160	History 120, 121, 124, 125, 126, 127, 128, 129, 135, 136, 140, 141, 142, 150, 151, 170, 171, 180, 181	
Art 151	Humanities 105, 108, 110, 111, 112, 115, 116, 118, 123, 124	
Art Digital Media 214	Italian 121, 220, 221, 230, 231	
Art History 193, 195, 196, 197, 199	Japanese 121, 220, 221	
Chinese 121, 220, 221	Music 110, 112, 114, 115, 116, 117, 118, 119	
Dance 201	Music Industry Studies 110	
Drama 114, 139, 142	Persian 121	
English 150, 151, 152, 153, 154, 162, 163, 164, 166, 167, 168, 170, 172, 173, 175, 176, 177, 178, 180, 190, 252, 253, 262, 263, 272, 273	Philosophy 120, 122, 140, 141, 145, 160, 220, 224, 225	
Film, Television and Electronic Media 200, 205, 210, 260, 280, 281, 282, 283	Russian 121, 220, 221	
French 121, 220, 221, 230, 231	Sign Language 282, 283	
	Spanish 121, 220, 221, 230, 231	
IV. SOCIAL AND BEHAVIORAL SCIENCES		3
Complete one course:		
Administration of Justice 120, 126	Journalism 110	
Anthropology 120, 125, 130, 135	Kinesiology 248	
Communication Studies 125, 180	Nutrition 130	
Early Childhood Education 124	Political Science 120, 121, 122, 127, 151, 220, 240, 250, 252	
Economics 101, 200, 220, 221	Psychology 101, 122, 130, 140, 141, 160, 190, 195, 200, 220, 225, 230, 240	
Engineering 130, 131	Social Science 101, 110, 111, 120, 123, 220	
Film, Television and Electronic Media 240	Sociology 120, 121, 123, 124, 125, 131, 135	
Geography 130, 135	Special Education 101, 102	
Health Science 127, 130, 135, 140, 164, 170		
History 120, 121, 124, 125, 126, 127, 128, 129, 135, 136, 140, 141, 142, 150, 151, 170, 171, 180, 181		
General Education		Total 18 Units
Additional courses may be necessary to complete the minimum of 18 units required for the Associate degree. Additional courses to be selected from Areas IB through IV.		
Major / Area of Emphasis		
This requirement is satisfied by completing the courses listed as the major/area of emphasis under various disciplines in the DVC catalog.		
Electives		
Elective courses may be necessary to complete the minimum of 60 degree-applicable units required for the Associate degree. Any degree-applicable course may be selected as an elective.		
Total units required for AA/AS degree		60

Full completion of IGETC (Option 2) or CSU GE (Option 3) may also be used in place of this pattern of courses.

IGETC for CSU or UC

2019 - 2020

Option 2 for DVC AA/AS GE

Diablo Valley College
Intersegmental General Education Transfer Curriculum
Effective Fall 2019 through Summer 2020

NOTE: Subject to change. See a counselor for more information.

Upon completion of this pattern of courses, DVC will certify that a student's lower division general education requirements are completed for any of the 23 CSU or 9 UC campuses. **Certification is not automatic; you must request certification with your final transcript at the DVC Admissions Office. Courses used for IGETC must be completed with a minimum grade of 'C' or higher.**

To transfer as a junior, you must complete at least 60 CSU or UC-transferable units. IGETC is not recommended for all majors. See www.assist.org or meet with a counselor. **You may also view IGETC FAQ's at www.dvc.edu/counseling.**

See a counselor or DVC catalog for use of AP and IB exams to meet these requirements.

<p>AREA 1 - ENGLISH COMMUNICATION CSU - 3 courses required, 1 each from Group A, B, and C. UC - 2 courses required, 1 each from Group A and B.</p>																			
<p>A. English Composition - 1 course, 3 semester units English 122, 122A</p>																			
<p>B. Critical Thinking - English Composition - 1 course, 3 semester units</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Art History 191</td> <td style="width: 50%;">Philosophy 130</td> </tr> <tr> <td>Communication Studies 121</td> <td>Psychology 145</td> </tr> <tr> <td>English 123, 126</td> <td>Sociology 122</td> </tr> <tr> <td>History 122</td> <td></td> </tr> </table>		Art History 191	Philosophy 130	Communication Studies 121	Psychology 145	English 123, 126	Sociology 122	History 122											
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Communication Studies 121	Psychology 145																		
English 123, 126	Sociology 122																		
History 122																			
<p>C. Oral Communication - CSU REQUIREMENT ONLY (not required by UC), 1 course, 3 semester units Communication Studies 120, 123, 130</p>																			
<p>AREA 2 - MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING – 1 course, 3 semester units</p> <p>Business 240+ Math 124, 135+, 135SP+, 142+, 144+, 181, 182+, 183+, 191+, 191SP+, 192+, 193+, 194, 195, 292, 294 Psychology 214+</p>																			
<p>AREA 3 – ARTS AND HUMANITIES - One Arts course, one Humanities course, and one course from either Arts or Humanities, 9 semester units.</p>																			
<p>A. Arts Courses</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Architecture 156, 157, 158</td> <td style="width: 50%;">Drama 114, 139, 142</td> </tr> <tr> <td>Art 151</td> <td>Film, Television and Electronic Media 200, 205+, 210, 280, 281+, 282, 283</td> </tr> <tr> <td>Art Digital Media 214</td> <td>Music 110, 112, 114, 115, 116, 117, 118, 119</td> </tr> <tr> <td>Art History 193, 195, 196, 197, 199</td> <td>Music Industry Studies 110</td> </tr> <tr> <td>Dance 201</td> <td></td> </tr> </table>		Architecture 156, 157, 158	Drama 114, 139, 142	Art 151	Film, Television and Electronic Media 200, 205+, 210, 280, 281+, 282, 283	Art Digital Media 214	Music 110, 112, 114, 115, 116, 117, 118, 119	Art History 193, 195, 196, 197, 199	Music Industry Studies 110	Dance 201									
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<p>B. Humanities Courses</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Arabic 121</td> <td style="width: 50%;">History 120, 121, 124, 125, 126, 127, 128, 129, 135, 136, 140, 141, 142, 150, 151, 170, 171, 180, 181</td> </tr> <tr> <td>Architecture 160</td> <td>Humanities 105, 108, 110, 111, 112, 115, 116, 118, 123, 124</td> </tr> <tr> <td>Chinese 121, 220, 221</td> <td>Italian 121, 220, 221, 230, 231</td> </tr> <tr> <td>English 150, 151, 152+, 153, 154, 162, 163, 164, 166, 167, 168, 170, 172, 173, 175, 176, 177, 178, 180, 190, 252, 253, 262, 263, 272, 273</td> <td>Japanese 121, 220, 221</td> </tr> <tr> <td>Film, Television and Electronic Media 260</td> <td>Persian 121</td> </tr> <tr> <td>French 121, 220, 221, 230, 231</td> <td>Philosophy 120, 122, 140, 141, 145, 160, 220, 224, 225</td> </tr> <tr> <td>German 121, 220, 221, 230, 231</td> <td>Russian 121, 220, 221</td> </tr> <tr> <td></td> <td>Sign Language 282, 283</td> </tr> <tr> <td></td> <td>Spanish 121, 220, 221, 230, 231</td> </tr> </table>		Arabic 121	History 120, 121, 124, 125, 126, 127, 128, 129, 135, 136, 140, 141, 142, 150, 151, 170, 171, 180, 181	Architecture 160	Humanities 105, 108, 110, 111, 112, 115, 116, 118, 123, 124	Chinese 121, 220, 221	Italian 121, 220, 221, 230, 231	English 150, 151, 152+, 153, 154, 162, 163, 164, 166, 167, 168, 170, 172, 173, 175, 176, 177, 178, 180, 190, 252, 253, 262, 263, 272, 273	Japanese 121, 220, 221	Film, Television and Electronic Media 260	Persian 121	French 121, 220, 221, 230, 231	Philosophy 120, 122, 140, 141, 145, 160, 220, 224, 225	German 121, 220, 221, 230, 231	Russian 121, 220, 221		Sign Language 282, 283		Spanish 121, 220, 221, 230, 231
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	Sign Language 282, 283																		
	Spanish 121, 220, 221, 230, 231																		
<p>AREA 4 - SOCIAL AND BEHAVIORAL SCIENCES - At least 3 courses, 9 semester units. Courses must be chosen from at least two disciplines.</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Administration of Justice 120, 126</td> <td style="width: 50%;">History 120, 121, 124, 125, 126, 127, 128, 129, 135, 136, 140, 141, 142, 150, 151, 170, 171, 180, 181</td> </tr> <tr> <td>Anthropology 120, 125, 130, 135</td> <td>Journalism 110</td> </tr> <tr> <td>Communication Studies 125, 180</td> <td>Kinesiology 248</td> </tr> <tr> <td>Early Childhood Education 124</td> <td>Nutrition 130</td> </tr> <tr> <td>Economics 101+, 200+, 220, 221</td> <td>Political Science 120, 121, 122, 127, 151, 220, 240, 250, 252</td> </tr> <tr> <td>Engineering 130, 131</td> <td>Psychology 101, 122, 130, 140, 141, 160, 190, 195, 200, 220, 225, 230, 240</td> </tr> <tr> <td>Film, Television and Electronic Media 240</td> <td>Social Science 101, 110, 111, 120, 123, 220</td> </tr> <tr> <td>Geography 130, 135</td> <td>Sociology 120, 121, 123, 124, 125, 131, 135</td> </tr> <tr> <td>Health Science 127+, 130, 135, 140, 164, 170+</td> <td>Special Education 101, 102</td> </tr> </table>		Administration of Justice 120, 126	History 120, 121, 124, 125, 126, 127, 128, 129, 135, 136, 140, 141, 142, 150, 151, 170, 171, 180, 181	Anthropology 120, 125, 130, 135	Journalism 110	Communication Studies 125, 180	Kinesiology 248	Early Childhood Education 124	Nutrition 130	Economics 101+, 200+, 220, 221	Political Science 120, 121, 122, 127, 151, 220, 240, 250, 252	Engineering 130, 131	Psychology 101, 122, 130, 140, 141, 160, 190, 195, 200, 220, 225, 230, 240	Film, Television and Electronic Media 240	Social Science 101, 110, 111, 120, 123, 220	Geography 130, 135	Sociology 120, 121, 123, 124, 125, 131, 135	Health Science 127+, 130, 135, 140, 164, 170+	Special Education 101, 102
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Film, Television and Electronic Media 240	Social Science 101, 110, 111, 120, 123, 220																		
Geography 130, 135	Sociology 120, 121, 123, 124, 125, 131, 135																		
Health Science 127+, 130, 135, 140, 164, 170+	Special Education 101, 102																		

AREA 5 – PHYSICAL AND BIOLOGICAL SCIENCES - At least 2 courses, one Physical Science course and one Biological Science course; at least one of the courses must include a laboratory; 7-9 semester units. **Laboratory must be taken with a matching lecture course.**

A. Physical Science Courses - Courses with a laboratory component are underlined.

Astronomy 110+ (add Astronomy <u>130</u> for lab), 120+ (add Astronomy <u>130</u> for lab), <u>128+</u>	Geology 120, 121, <u>122</u> , <u>124</u> , 125, <u>130</u>
Chemistry <u>106+</u> , <u>107+</u> , <u>108+</u> , <u>109+</u> , <u>120</u> , <u>121</u> , <u>226</u> , <u>227</u>	Oceanography 101+, <u>102+</u>
Geography 120, <u>121</u> , 140, <u>141</u>	Physical Science 112+
	Physics 110+, <u>111+</u> , 113, <u>120+</u> , <u>121+</u> , <u>129+</u> , <u>130+</u> , <u>230+</u> , <u>231+</u>

B. Biological Science Courses - Courses with a laboratory component are underlined.

Anthropology 115 (no lab), 140 (add Anthropology <u>141L</u> for lab)	Biological Science 101+, <u>102+</u> , <u>107</u> , 116+, <u>117+</u> , <u>119+</u> , <u>120+</u> , <u>126</u> , <u>130</u> , <u>131</u> , <u>139+</u> , <u>140+</u> , <u>146+</u> , 161+, <u>162+</u> , 170+, <u>171+</u>
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C. Laboratory must be taken with matching lecture course.

One course underlined in Area 5A or 5B.

AREA 6 - LANGUAGE OTHER THAN ENGLISH - UC REQUIREMENT ONLY (not required by CSU)

Students shall demonstrate proficiency in a language other than English by completing ONE of the following:

- Satisfactory completion of two years of high school coursework (United States high school or high school in country where the language of instruction is English) in a language other than English, with a grade of "C-" or better in each course. The two years must be in the same language. Two years of high school study in American Sign Language (ASL). (Please submit official transcript to DVC Admissions Office).
- One of the following: Arabic 120; Chinese 120; French 120; German 120; Italian 120; Japanese 120; Persian 120; Russian 120; Sign Language 281; Spanish 120. (This requirement can be validated by more advanced course.)
- Satisfactory score in the SAT II: Subject Test in languages other than English. (See counselor for required scores.)
- Score of 3 or higher on the AP exams in languages other than English.
- Score of 5 or higher on the International Baccalaureate Higher Level Exams in languages other than English.
- Language other than English "O" level exam with a grade of "C" or higher.
- Language other than English International "A" Level exam with a grade of "C" or higher.
- Satisfactory completion of a proficiency test administered by a community college, university or other college in a language other than English.
- Satisfactory completion with "C" grades or higher, of two years of formal schooling at the sixth grade level or higher in an institution where the language of instruction is not English. Appropriate documentation of attendance at the secondary school must be presented to DVC Admissions Office.

CSU Graduation Requirement

U.S. HISTORY, CONSTITUTION AND AMERICAN IDEALS REQUIREMENT: GRADUATION REQUIREMENT ONLY. The following pair of classes fulfill the US History, Constitution, and American institutions (AH&I) requirement. This CSU graduation requirement may be fulfilled, but is not required, prior to transfer. Courses used to fulfill this requirement also meet course requirement in IGETC Areas 3 or 4. See a counselor or DVC catalog for the use of AP and CLEP examinations to meet this requirement.

1 of the following pairs (2 courses):

HIST 120 + HIST 121	HIST 125 + POLSC 121	HIST 128 + HIST 170	HIST 171 + POLSC 121
HIST 120 + HIST 124	HIST 125 + POLSC 122	HIST 128 + POLSC 121	HIST 171 + POLSC 122
HIST 120 + HIST 128	HIST 125 + SOCS 111	HIST 128 + POLSC 122	HIST 171 + SOCS 111
HIST 120 + HIST 171	HIST 125 + SOCS 220	HIST 128 + SOCS 111	HIST 171 + SOCS 120
HIST 120 + POLSC 121		HIST 128 + SOCS 120	HIST 171 + SOCS 220
HIST 120 + POLSC 122	HIST 126 + POLSC 121	HIST 128 + SOCS 220	
HIST 120 + POLSC 151	HIST 126 + POLSC 122		SOCS 111 + SOCS 120
HIST 120 + SOCS 111	HIST 126 + SOCS 111	HIST 129 + POLSC 121	SOCS 120 + POLSC 121
HIST 120 + SOCS 220	HIST 126 + SOCS 220	HIST 129 + POLSC 122	SOCS 120 + POLSC 122
		HIST 129 + SOCS 111	SOCS 120 + POLSC 151
HIST 121 + HIST 127	HIST 127 + HIST 128	HIST 129 + SOCS 220	SOCS 120 + SOCS 220
HIST 121 + HIST 170	HIST 127 + HIST 171		
HIST 121 + POLSC 121	HIST 127 + POLSC 121	HIST 170 + HIST 171	GOVT & POLITICS AP EXAM + HIST 121
HIST 121 + POLSC 122	HIST 127 + POLSC 122	HIST 170 + POLSC 121	GOVT & POLITICS AP EXAM + HIST 128
HIST 121 + SOCS 111	HIST 127 + POLSC 151	HIST 170 + POLSC 122	GOVT & POLITICS AP EXAM + HIST 171
HIST 121 + SOCS 120	HIST 127 + SOCS 111	HIST 170 + POLSC 151	
HIST 121 + SOCS 220	HIST 127 + SOCS 220	HIST 170 + SOCS 111	HIST AP EXAM + POLSC 121
		HIST 170 + SOCS 220	HIST AP EXAM + POLSC 122
HIST 124 + HIST 127			HIST AP EXAM + SOCS 111
HIST 124 + HIST 170			HIST AP EXAM + SOCS 220
HIST 124 + SOCS 120			

Full completion of this pattern will also fulfill the general education requirements for the DVC AA/AS degree (Option 2).

+ UC credit limits may apply – please see a counselor.

CSU GE

Option 3 for DVC AA/AS GE

2019-2020

Diablo Valley College
California State University General Education (GE) Breadth Requirements
Effective Fall 2019 through Summer 2020

NOTE: Subject to change. See a counselor for more information.

Upon completion of this pattern of courses, DVC will certify that a student's lower division general education requirements are completed for any of the 23 campuses within the CSU system. **Certification is not automatic; you must request certification with your final transcript at the DVC Admissions Office.**

See www.assist.org for information specific to your major.

TO TRANSFER AS A JUNIOR TO CSU YOU MUST:

- Complete at least 60 CSU-transferable units with a "C" average (2.0).
- Complete at least 30 of the 39 units from the GE courses listed below, including one course from each of the following areas: A1, A2, A3 and B4, with grades of "C" or higher.

NOTE: A course may be listed in more than one area, but may be used to satisfy only one subject requirement except U.S. History, Constitution and American Ideals.

See a counselor or DVC catalog for use of AP, CLEP or IB exams to meet these requirements.

<p>A. ENGLISH LANGUAGE COMMUNICATION AND CRITICAL THINKING - 9 units required. Grade of "C" or higher for certification.</p> <p>A1 Oral Communication Communication Studies 120, 123, 130</p>																														
<p>A2 Written Communication English 122, 122A</p>																														
<p>A3 Critical Thinking (one course)</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Art History 191</td> <td style="width: 50%;">Philosophy 130, 170</td> </tr> <tr> <td>Communication Studies 121, 123</td> <td>Psychology 145</td> </tr> <tr> <td>English 123, 126</td> <td>Sociology 122</td> </tr> <tr> <td>History 122</td> <td></td> </tr> </table>	Art History 191	Philosophy 130, 170	Communication Studies 121, 123	Psychology 145	English 123, 126	Sociology 122	History 122																							
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<p>B. SCIENTIFIC INQUIRY AND QUANTITATIVE REASONING (including Mathematics) - at least 9 units required. One Physical Science course and one Life Science course, at least one of the courses must include a laboratory. Courses with a lab component are underlined. At least one mathematics course also required.</p> <p>B1 Physical Science</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Astronomy 110 (add Astronomy <u>130</u> for lab), 120 (add Astronomy <u>130</u> for lab), <u>128</u></td> <td style="width: 50%;">Geology 120 (add Geology <u>122</u> for lab), 121 (add Geology <u>124</u> for lab), 125, <u>130</u></td> </tr> <tr> <td>Chemistry <u>106, 107, 108, 109, 120, 121, 226, 227</u></td> <td>Oceanography 101, <u>102</u></td> </tr> <tr> <td>Geography 120 (add Geography <u>121</u> for lab), 140 (add Geography <u>141</u> for lab)</td> <td>Physical Science 112</td> </tr> <tr> <td></td> <td>Physics 110 (add Physics <u>111</u> for lab), 113, <u>120, 121, 129, 130, 230, 231</u></td> </tr> </table> <p>B2 Life Science</p> <p>Anthropology 115 (no lab), 140 (add Anthropology <u>141</u> for lab); Biological Science 101, <u>102, 107, 116, 117, 119, 120, 126, 130, 131, 139, 140, 146, 161, 162, 170, 171</u></p> <p>B3 Laboratory Activity One course underlined in Area B1 or B2 with lecture course as stated above.</p> <p>B4 Mathematics/Quantitative Reasoning Grade of "C" or higher required for certification. Business 240 Mathematics 121, 124, 125, 135, 135SP, 142, 144, 181, 182, 183, 191, 191SP, 192, 193, 194, 195, 292, 294 Psychology 214</p>	Astronomy 110 (add Astronomy <u>130</u> for lab), 120 (add Astronomy <u>130</u> for lab), <u>128</u>	Geology 120 (add Geology <u>122</u> for lab), 121 (add Geology <u>124</u> for lab), 125, <u>130</u>	Chemistry <u>106, 107, 108, 109, 120, 121, 226, 227</u>	Oceanography 101, <u>102</u>	Geography 120 (add Geography <u>121</u> for lab), 140 (add Geography <u>141</u> for lab)	Physical Science 112		Physics 110 (add Physics <u>111</u> for lab), 113, <u>120, 121, 129, 130, 230, 231</u>																						
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<p>C. ARTS AND HUMANITIES - at least 9 units required. One Arts course, one Humanities course and one course from either Arts or Humanities.</p> <p>C1 Arts: (Art, Dance, Film, Music, Theater)</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Architecture 120, 121, 130, 156, 157, 158, 160</td> <td style="width: 50%;">Drama 114, 122, 139, 142, 150</td> </tr> <tr> <td>Art 151</td> <td>English 152</td> </tr> <tr> <td>Art Digital Media 214</td> <td>Film, Television and Electronic Media 200, 210, 205, 280, 281, 282, 283</td> </tr> <tr> <td>Art History 193, 195, 196, 197, 199</td> <td>Music 110, 112, 114, 115, 116, 117, 118, 119, 122</td> </tr> <tr> <td>Communication Studies 148</td> <td>Music Industry Studies 110</td> </tr> <tr> <td>Dance 201</td> <td></td> </tr> </table> <p>C2 Humanities: (Literature, Philosophy, Foreign Language)</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Arabic 121</td> <td style="width: 50%;">History 120, 121, 124, 125, 126, 127, 128, 129, 135, 136, 140, 141, 142, 150, 151, 170, 171, 180, 181</td> </tr> <tr> <td>Architecture 160</td> <td>Humanities 105, 108, 110, 111, 112, 115, 116, 118, 123, 124</td> </tr> <tr> <td>Chinese 121, 220, 221</td> <td>Italian 121, 220, 221, 230, 231</td> </tr> <tr> <td>Drama 142</td> <td>Japanese 121, 220, 221</td> </tr> <tr> <td>English 150, 151, 152, 153, 154, 162, 163, 164, 166, 167, 168, 170, 172, 173, 175, 176, 177, 178, 180, 190, 222, 223, 224, 225, 252, 253, 262, 263, 272, 273</td> <td>Persian 121</td> </tr> <tr> <td>Film, Television and Electronic Media 210, 260</td> <td>Philosophy 120, 122, 140, 141, 145, 160, 220, 224, 225</td> </tr> <tr> <td>French 121, 220, 221, 230, 231</td> <td>Russian 121, 220, 221</td> </tr> <tr> <td>German 121, 220, 221, 230, 231</td> <td>Sign Language 281, 282, 283</td> </tr> <tr> <td></td> <td>Spanish 121, 220, 221, 230, 231</td> </tr> </table>	Architecture 120, 121, 130, 156, 157, 158, 160	Drama 114, 122, 139, 142, 150	Art 151	English 152	Art Digital Media 214	Film, Television and Electronic Media 200, 210, 205, 280, 281, 282, 283	Art History 193, 195, 196, 197, 199	Music 110, 112, 114, 115, 116, 117, 118, 119, 122	Communication Studies 148	Music Industry Studies 110	Dance 201		Arabic 121	History 120, 121, 124, 125, 126, 127, 128, 129, 135, 136, 140, 141, 142, 150, 151, 170, 171, 180, 181	Architecture 160	Humanities 105, 108, 110, 111, 112, 115, 116, 118, 123, 124	Chinese 121, 220, 221	Italian 121, 220, 221, 230, 231	Drama 142	Japanese 121, 220, 221	English 150, 151, 152, 153, 154, 162, 163, 164, 166, 167, 168, 170, 172, 173, 175, 176, 177, 178, 180, 190, 222, 223, 224, 225, 252, 253, 262, 263, 272, 273	Persian 121	Film, Television and Electronic Media 210, 260	Philosophy 120, 122, 140, 141, 145, 160, 220, 224, 225	French 121, 220, 221, 230, 231	Russian 121, 220, 221	German 121, 220, 221, 230, 231	Sign Language 281, 282, 283		Spanish 121, 220, 221, 230, 231
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<p>D. SOCIAL SCIENCES – at least 9 units required with courses in at least 2 disciplines.</p>			
Administration of Justice 120, 126, 139	Journalism 110		
Anthropology 120, 125, 130, 135	Kinesiology 248		
Communication Studies 125, 180	Nutrition 130		
Early Childhood Education 124, 130, 144	Political Science 120, 121, 122, 127, 151, 220, 240, 250, 252		
Economics 101, 200, 220, 221	Psychology 101, 122, 130, 140, 141, 160, 190, 195, 200, 215, 220, 225, 230, 240		
Engineering 130, 131	Social Science 101, 110, 111, 120, 123, 220		
Film, Television and Electronic Media 240	Sociology 120, 121, 123, 124, 125, 131, 135		
Geography 130, 135	Special Education 101, 102		
Health Science 127, 130, 135, 140, 164, 170			
History 120, 121, 124, 125, 126, 127, 128, 129, 135, 136, 140, 141, 142, 150, 151, 170, 171, 180, 181			
<p>E. LIFELONG LEARNING AND SELF-DEVELOPMENT – at least 3 units required, not all in physical activity. Military service may be used to fulfill this requirement. DD-214 must be submitted to the DVC Admissions and Records Office.</p>			
Career 110	Kinesiology 100		
Counseling 120	Kinesiology – Activity All courses		
Early Childhood Education 124	Kinesiology - Dance All courses		
Health Science 124, 127, 130, 135, 140, 164, 170	Nutrition 115, 130, 160		
	Psychology 122, 140, 141, 160, 195, 200		
<p>U.S. HISTORY, CONSTITUTION AND AMERICAN IDEALS REQUIREMENT:</p>			
<p>GRADUATION REQUIREMENT ONLY. This CSU graduation requirement may be fulfilled, but is not required, prior to transfer. Courses used to fulfill this requirement also meet course requirement in CSU GE Areas C or D. See a counselor or DVC catalog for use of AP and CLEP examinations to meet this requirement.</p>			
<p>1 of the following pairs (2 courses):</p>			
HIST 120 + HIST 121	HIST 125 + POLSC 121	HIST 128 + HIST 170	HIST 171 + POLSC 121
HIST 120 + HIST 124	HIST 125 + POLSC 122	HIST 128 + POLSC 121	HIST 171 + POLSC 122
HIST 120 + HIST 128	HIST 125 + SOCSC 111	HIST 128 + POLSC 122	HIST 171 + SOCSC 111
HIST 120 + HIST 171	HIST 125 + SOCSC 220	HIST 128 + SOCSC 111	HIST 171 + SOCSC 120
HIST 120 + POLSC 121		HIST 128 + SOCSC 120	HIST 171 + SOCSC 220
HIST 120 + POLSC 122	HIST 126 + POLSC 121	HIST 128 + SOCSC 220	
HIST 120 + POLSC 151	HIST 126 + POLSC 122		SOCSC 120 + POLSC 121
HIST 120 + SOCSC 111	HIST 126 + SOCSC 111	HIST 129 + POLSC 121	SOCSC 120 + POLSC 122
HIST 120 + SOCSC 220	HIST 126 + SOCSC 220	HIST 129 + POLSC 122	SOCSC 120 + POLSC 151
		HIST 129 + SOCSC 111	SOCSC 111 + SOCSC 120
		HIST 129 + SOCSC 220	SOCSC 120 + SOCSC 220
HIST 121 + HIST 127	HIST 127 + HIST 128		
HIST 121 + HIST 170	HIST 127 + HIST 171	HIST 170 + HIST 171	GOVT & POLITICS AP EXAM + HIST 121
HIST 121 + POLSC 121	HIST 127 + POLSC 121	HIST 170 + POLSC 121	GOVT & POLITICS AP EXAM + HIST 128
HIST 121 + POLSC 122	HIST 127 + POLSC 122	HIST 170 + POLSC 122	GOVT & POLITICS AP EXAM + HIST 171
HIST 121 + SOCSC 111	HIST 127 + POLSC 151	HIST 170 + POLSC 122	
HIST 121 + SOCSC 120	HIST 127 + SOCSC 111	HIST 170 + POLSC 151	
HIST 121 + SOCSC 220	HIST 127 + SOCSC 220	HIST 170 + SOCSC 111	HIST AP EXAM + POLSC 121
		HIST 170 + SOCSC 220	HIST AP EXAM + POLSC 122
			HIST AP EXAM + SOCSC 111
			HIST AP EXAM + SOCSC 220
HIST 124 + HIST 127			
HIST 124 + HIST 170			
HIST 124 + SOCSC 120			

Full completion of this pattern will also fulfill the general education requirements for the DVC AA/AS degree (Option 3).



DVC CAREER EDUCATION PROGRAMS

DVC offers more than 30 career education programs and over 100 certificates and degrees that provide students with the educational background and training they need to achieve their career goals. By completing a career education program, students demonstrate to employers that they have acquired appropriate and up-to-date skills. Changing technologies affect the way we live and perform our jobs. Staying on top of these changes is an important priority. DVC's excellent reputation is a distinct advantage to our students as they compete in today's demanding job market.

Career education certificate and degree programs vary in length; most certificate programs require less than two years of full-time study to complete and many programs may be completed on a part-time basis. DVC offers two types of certificates: certificates of achievement and certificates of accomplishment. In many cases, courses completed as part of a certificate program can be applied to a degree program. Only certificates of achievement and associate degrees are recorded on the student's official transcript.

Students who successfully complete their certificate or degree coursework must apply to the Admissions and Records Office to receive their award. To qualify for a certificate, students must complete at least twenty-five percent of the required courses at DVC. Students must also maintain a grade point average of "C" (2.0) or higher in the certificate's required courses. Some certificates require a higher grade point average in required courses. See specific program descriptions for details.

Students who would like help in planning for their career or profession should seek the advice of a counselor or program advisor. DVC offers a wide range of educational opportunities and the counseling department is available to help students carefully plan a course of study that takes into consideration personal interests, aptitudes, and experiences. Studies show that careful planning will help to ensure students' college and future success.

DVC CERTIFICATE PROGRAMS and ASSOCIATE DEGREES

Department	cert of accomplishment	cert of achievement	degree - major	AA/AS/AA-T/AS-T	Department	cert of accomplishment	cert of achievement	degree - major	AA/AS/AA-T/AS-T
Addiction Studies - ADS		•	•		Geography - GEOG	•	•	•	•
Administration of Justice - ADJUS	•	•	•	•	Geology - GEOL			•	•
Anthropology - ANTHR				•	German - GRMAN		•	•	
Architecture - ARCHI		•	•		Health Science - HSCI			•	•
Art - ART		•	•	•	Heating, Ventilation, Air Conditioning, Refrigeration - HVACR	•	•	•	
Art Digital Media/Graphic Design - ARTDM	•	•	•		History - HIST				•
Art History - ARTHS				•	Horticulture - HORT		•		
Biological Science/Allied Health - BIOSC		•	•	•	Humanities - HUMAN			•	
Business - BUS	•	•	•	•	Industrial Design - IDSGN		•	•	
Business Accounting - BUSAC		•	•		Italian - ITAL		•	•	
Chemistry		•			Japanese - JAPAN		•	•	
Chinese - CHIN		•	•		Journalism - JRNL				•
Communication Studies - COMM		•		•	Kinesiology- KINES		•	•	•
Computer Information Systems - CIS	•	•	•		Library Technology - LT		•	•	
Computer Network Technologies - CNT		•	•		Mathematics - MATH				•
Computer Science - COMSC		•	•		Mathematics - MATH				•
Construction - CONST	•	•	•		Mechanical Technology - ENGTC		•	•	
Culinary Arts - CULN		•	•		Music - MUSIC			•	•
Dance - DANCE			•		Music Industry Studies - MUSX		•	•	
Dental Assisting - DENTL		•	•		Nutrition - NUTRI				•
Dental Hygiene - DENHY			•		Philosophy - PHILO		•	•	•
Drama - DRAMA		•	•	•	Physics - PHYS				•
Early Childhood Education - ECE		•	•	•	Plumbing - PLUMB	•	•	•	
Economics - ECON				•	Political Science - POLSC				•
Education				•	Psychology - PSYCH				•
Electrical/Electronics Technology - ELECT/ELTRN	•	•	•		Real Estate - RE (see Business)		•		
Energy Systems - ENSYS	•	•	•		Respiratory Therapy** - RT			•	
Engineering - ENGIN			•		Russian - RUSS		•	•	
Engineering Technology - ENGTC	•	•	•		Social Science - SOCSC				•
English - ENGL			•	•	Sociology - SOCIO				•
English as a Second Language - ESL	•				Spanish - SPAN		•	•	•
Environmental Science - ENVSC			•	•	Special Education - SPEDU		•	•	
Film, Television and Electronic Media - FTVE	•	•	•	•	Steamfitting - STMFT	•	•	•	
French - FRNCH		•	•		Transfer Studies - CSU		•		
					Transfer Studies - IGETC		•		

** offered in collaboration with Ohlone College, which grants the degree

PROGRAM AND COURSE DESCRIPTIONS

chapter four
catalog 2019-2020



Understanding the course descriptions	62
Coursework and study time per unit	63
Program length	63
Program and course descriptions	64
Accounting (see business accounting)	125
Addiction studies	64
Administration of justice	67
Allied health (see biological science)	107
Anthropology	74
Arabic	77
Architecture	78
Art	83
Art digital media	94
Art history	104
Astronomy	106
Biological science	107
Business	115
Business accounting	125
Business management	130
Business marketing	132
Business real estate	133
Career	134
Chemistry	135
Chinese	137
Communication studies	139
Computer information systems	142
Computer network technology	148

Computer science	153	Kinesiology	292
Construction	157	Kinesiology activity	302
Counseling	164	Kinesiology combative	310
Culinary arts	165	Kinesiology dance	311
Dance	176	Kinesiology intercollegiate athletics	314
Dental assisting	181	Library studies	316
Dental hygiene	184	Library technology	316
Drama	190	Mathematics	320
Early childhood education	196	Music	329
Economics	207	Music industry studies	338
Education	209	Natural science (see biological science)	107
Electrical/electronics technology	210	Nutrition	343
Energy systems	214	Oceanography	345
Engineering	216	Persian	346
Engineering technology	220	Philosophy	347
English	227	Photography (see art)	83
English as a second language	235	Physical science	350
Environmental science	239	Physics	351
Film, television, and electronic media	241	Plumbing	353
French	248	Political science	357
Geography	251	Psychology	359
Geology	257	Real estate (see business real estate)	133
German	259	Respiratory therapy	363
Health science	262	Russian	365
Heating, ventilation, air conditioning, refrigeration	266	Sign language	367
History	270	Social science	367
Horticulture	274	Sociology	370
Humanities	281	Spanish	373
Industrial design	283	Special education	376
Interdisciplinary studies	285	Sports medicine/athletic training (see kinesiology)	292
Italian	285	Steamfitting	378
Japanese	288	Transfer studies	384
Journalism	290	Work experience	385



UNDERSTANDING THE COURSE DESCRIPTIONS

Availability of course offerings

The courses listed in the catalog may not be offered every term or every year. Refer to the schedule of classes for courses offered in the current term.

Course numbering

Course descriptions with numbers below 100 are not college level (degree applicable) courses and do not apply as credit toward the associate degree. Most courses with numbers between 100 and 299 are college-level freshman and sophomore level courses. Exceptions apply in English. English and English as a Second Language courses numbered below 122/122A are not college level and have limited or no degree applicability. Only one of the following courses may be applied to the units required for an associate degree: ENGL-116, 117, 118, or ESL-117A. Students should carefully review each specific course description and meet with a counselor to ensure that the selected courses will satisfy requirements for transfer, degree, or certificate goals.

Prerequisites/co-requisites

When a course description lists a prerequisite, it means that the prerequisite must be successfully completed before the student may enroll in that course. If the course lists a co-requisite, students must have successfully completed the course in a prior term or be enrolled in the co-requisite course in the same term. See page 17 for more information about course prerequisites and/or co-requisites.

Recommendations

When a course description lists a recommendation, students are advised to complete the recommended course or courses before enrolling in the selected course. Recommendations increase the student's ability to succeed.

Course codes

The course descriptions in this catalog and in the schedule of classes use codes to identify grading and transferability options. These codes are defined as follows:

Grade Codes

P/NP - The course may only be taken for a pass/no pass grade.

LR - The course may only be taken for a letter grade.

SC - Students may choose P/NP grading before the fourth week of the term for full-term classes. See page 28 for more information about the grade policy.

Transferability codes

CSU-transferable (CSU)

Courses identified with the CSU code at the end of the description are transferable to campuses of the CSU system. However, they may only be transferable as an elective, not as a major or general education requirement. Students should seek the advice of a counselor for complete information about the transferability of courses toward meeting general education or major requirements. Lists of CSU-transferable courses are available at www.assist.org.

UC-transferable (UC)

DVC offers many courses that are transferable to all UC campuses. A course must be on the Transfer Course Agreement (TCA) at the time it is taken to be transferable to UC. Courses identified with a UC code at the end of the description are transferable. Lists of UC-transferable courses are available at www.assist.org.

California Course Identification Numbering System (C-ID)

The Course Identification Numbering System (C-ID) is a statewide numbering system independent from the course numbers assigned by local California community colleges. A C-ID number signals that participating California colleges and universities have determined that courses offered by other California community colleges are comparable in content and scope to courses offered on their own campuses, regardless of their unique titles or local course number. Thus, if a schedule of classes or catalog lists a course bearing a C-ID number, for example COMM 110, students at that college can be assured that it will be accepted in lieu of a course bearing the C-ID COMM 110 designation at another community college. In other words, the C-ID designation can be used to identify comparable courses at different community colleges. However, students should always go to www.assist.org to confirm how each college's course will be accepted at a particular four-year college or university for transfer credit.

The C-ID numbering system is useful for students attending more than one community college and is applied to many of the transferable courses students need as preparation for transfer. Because these course requirements may change and because courses may be modified and qualified for or deleted from the C-ID database, students should always check with a counselor to determine how C-ID designated courses fit into their educational plans for transfer.

Students may consult the ASSIST database at www.assist.org for specific information on C-ID course designations. Counselors can help students interpret or explain this information. See course descriptions for C-ID course designations.

COURSEWORK AND STUDY TIME PER UNIT

Units of credit are established based on the minimum amount of time students will need to achieve the intended learning outcomes as described by Title 5, section 55002.5. Units of credit established by the faculty for each course reflect generally accepted norms or equivalencies in higher education. In general, for a full-term, three-unit lecture class, students spend three plus hours each week in class and six plus hours of study time out of class totaling a minimum of 9 hours each week. The number of units established for laboratory courses is based on the number of hours of laboratory work alone, although many laboratory courses may also require study outside of laboratory hours.

Expected total hours of study outside of class apply equally to short-term and summer classes; students should carefully plan their schedules to include these hours of study during accelerated terms. Online classes require more hours of independent work in lieu of face-to-face meetings and students are advised that total hours of study for such courses will exceed minimums.

The following examples reflect the minimum expected hours of study per term:

Sample Course	Units	Lecture hours	Laboratory Activity hours	Minimum out of class study hours	Total hours	Typical hours week for a full term class
HIST-120	3	54	0	108	162	9+
COMSC-210	4	54	54	108	216	12+
KNACT-110A	1	0	54	0	54	3+
MATH-135	4	72	0	144	216	12+

A unit load of 12 units is generally considered full-time. In the examples provided above, a student enrolling in HIST-120, COMSC-210, KNACT-110A and MATH-135 would expect to devote a minimum of 36 hours to study (in and out-of-class).

PROGRAM LENGTH

Most degree programs at DVC can be completed in two years, assuming students take an average of 15 units per term. Certificate programs vary in length; most certificate programs require less than two years of full-time study to complete and many programs may be completed on a part-time basis. DVC offers two types of certificates; certificates of achievement and certificates of accomplishment. In many cases, courses completed as part of a certificate program can be applied to a degree program. Only certificates of achievement and associate degrees are recorded on the student's official transcript. Students are advised to meet with a counselor or program advisor to develop an educational plan as not all courses are offered every term.

PROGRAM AND COURSE DESCRIPTIONS

ACCOUNTING

See Business accounting - BUSAC

ADDICTION STUDIES – ADS

Diablo Valley College is approved by the California Board of Registered Nurses for continuing education credits. All ADS courses can be used. (Provider # CEP 7992).

Joseph Gorga, Dean
 Biological and Health Sciences Division
 Physical Sciences Building, Room 263

Possible career opportunities

Addiction studies students develop an in-depth understanding of the addiction process and how to motivate someone towards positive change. The addiction counseling certificate prepares students for a career as a substance abuse counselor, community services worker, or an addiction/prevention/intervention educator.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in science degree Addiction counseling

Students completing the program will be able to...

- compare and contrast the efficacy of various assessment tools, motivational strategies, and substance abuse treatment approaches.
- describe the importance of cultural competence and how it relates to becoming an effective addiction counselor.
- demonstrate basic listening skills.
- discuss the legal and ethical issues that workers may encounter in the addiction treatment field.
- explain how addiction affects family systems.
- compare and contrast various assessment tools, treatment plans and charting protocols.

The associate degree program in addiction counseling provides students with the academic preparation needed for employment in the addiction counseling field. Earning this degree may also facilitate the student's transfer to a four-year college or university. Students who wish to transfer must consult with program faculty and college counselors to ensure that the requirements for transfer to appropriate institutions are met. To earn an associate in science degree, students must complete each course used to meet a major requirement with a "C" grade or higher. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

Upon completing this degree, a student may apply for any of the state recognized professional credentials offered by the following organizations: California Association of Alcoholism and Drug Abuse Counselors (CAADAC), California Association of Alcohol and Drug Educators (CAADE), and the California Association of Addiction Recovery Resources (CAARR). Each of these credentials has additional testing and/or field practicum hours required, but all of the educational coursework is completed when you finish the addiction counseling program at DVC.

<i>major requirements:</i>		<i>units</i>
ADS-102	Introduction to Motivational Interviewing Skills	3
ADS-151*	Ethical and Legal Concerns for ADS Counselors	1.5
ADS-152	Relapse Prevention	3
ADS-154	Dual Disorders.....	3
ADS-155	Diverse Communities and Social Services	3
ADS-168*	Group Process and Leadership.....	3
ADS-170	Introduction to Codependency and Family Issues	3
ADS-171*	ADS Field Work I	5.5
ADS-172*	ADS Field Work II	5.5
HSCI-127	Drugs, Health and Society.....	3
total minimum units for the major		33.5

**The above courses have specific prerequisites. See course descriptions for details.*

Associate in science degree Addiction studies

Students completing the program will be able to...

- compare and contrast the prevalence, impact, and cost of substance use, abuse, and dependence to the individual and society.
- identify the general terminology related to addiction and recovery.
- analyze common family patterns of behavior and the influence addiction has within the family system.
- describe ways addiction affects family systems.

The associate degree program in addiction studies provides students with a broad general education while integrating an in-depth exploration of the skills and knowledge to work with people who have addiction problems. This degree will contribute significantly to those who want to work in occupational fields such as social services, criminal justice, youth services, education, clergy, nursing, and human resources. Earning this degree may also facilitate the student's transfer to a four-year college or university. Students who wish to transfer must consult with program faculty and college counselors to ensure that the requirements for transfer to appropriate institutions are met. Certain courses may satisfy both major and general education requirements; however, the units are only counted once. To earn an associate in science degree, students must complete each course used to meet a major requirement with a "C" grade or higher.

<i>major requirements:</i>		<i>units</i>
ADS-102	Introduction to Motivational Interviewing Skills	3
ADS-152	Relapse Prevention	3
ADS-154	Dual Disorders.....	3
ADS-155	Diverse Communities and Social Services	3
ADS-170	Introduction to Codependency and Family Issues	3
HSCI-127	Drugs, Health and Society	3
total minimum units for the major		18

Certificate of achievement Addiction counseling

Students completing the program will be able to...

- A. compare and contrast the efficacy of various assessment tools, motivational strategies, and substance abuse treatment approaches.
- B. describe the importance of cultural competence and how it relates to becoming an effective addiction counselor.
- C. demonstrate basic listening skills.
- D. identify the legal and ethical issues that workers may encounter in the addiction treatment field.
- E. demonstrate an understanding of how addiction affects family systems.

The addiction counseling certificate provides students with the academic preparation needed for employment in the addiction counseling field. Upon completing this certificate, a student may apply for any of the state recognized professional credentials offered by the following organizations: California Association of Alcoholism and Drug Abuse Counselors (CAADAC), California Association of Alcohol and Drug Educators (CAADE), and the California Association of Addiction Recovery Resources (CAARR). Each of these certificates has additional testing and/or field practicum hours required, but all of the educational coursework is completed when you finish the addiction counseling certificate at DVC.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Required courses are primarily available in the evening and late afternoon. Although students may start during any term and progress at their own pace, completion of the certificate will take approximately four terms.

<i>required courses:</i>		<i>units</i>
ADS-102	Introduction to Motivational Interviewing Skills	3
ADS-151*	Ethical and Legal Concerns for ADS Counselors	1.5
ADS-152	Relapse Prevention	3
ADS-154	Dual Disorders.....	3
ADS-155	Diverse Communities and Social Services	3
ADS-168*	Group Process and Leadership.....	3
ADS-170	Introduction to Codependency and Family Issues	3
ADS-171*	ADS Field Work I	5.5
ADS-172*	ADS Field Work II	5.5
HSCI-127	Drugs, Health and Society	3
total minimum required units		33.5

*The above courses have specific prerequisites. See course description for details.

Certificate of achievement Addiction studies

Students completing the program will be able to...

- A. compare and contrast the prevalence, impact, and cost of substance use, abuse, and dependence to the individual and society.
- B. identify the general terminology related to addiction and recovery.
- C. analyze common family patterns of behavior and the influence addiction has within the family system.
- D. demonstrate an understanding of how addiction affects family systems.

The addiction studies certificate is for students who want a specialized focus in addiction, treatment and recovery but are not preparing to become an addiction counselor. This certificate may be useful for teachers, human services personnel, or community service personnel who want to have a deeper understanding of the addiction process.

Important note: Once this certificate is completed, if you choose to continue in the addiction studies program, you may apply these units towards the more in-depth addiction counseling certificate. When a student has enough units to earn either certificate, they need to fill out an "application for a certificate" form during the term in which they will complete the units. This form must be picked up and turned in to the Admissions and Records Office. If the form is not filled out, a student will not receive the certificate from the college even if they have completed all the units.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Required courses are primarily available in the evening and late afternoon. Although students may start during any term and progress at their own pace, completion of the certificate requirements will take a minimum of two terms.

<i>required courses:</i>	<i>units</i>
ADS-102 Introduction to Motivational Interviewing Skills	3
ADS-152 Relapse Prevention	3
ADS-154 Dual Disorders.....	3
ADS-155 Diverse Communities and Social Services	3
ADS-170 Introduction to Codependency and Family Issues	3
HSCI-127 Drugs, Health and Society.....	3
total minimum required units.....	18

ADS-102 Introduction to Motivational Interviewing Skills

- 3 units SC
- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents an overview of basic communication skills, motivational interviewing techniques, and the theories of Change. Charting protocols and treatment planning techniques will also be covered. CSU

ADS-150 Topics in Addiction Studies

- .3-4 units SC
- Variable hours

A supplemental course in addiction studies to provide a study of current concepts and problems in addiction studies and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

ADS-151 Ethical and Legal Concerns for ADS Counselors

- 1.5 units SC
- 27 hours lecture per term
- Prerequisite: ADS-102 (may be taken concurrently) and HSCI-127 or equivalents
- Recommended: Eligibility for ENGL-122 or equivalent

This course is designed to familiarize students with the legal and ethical issues related to addiction counseling in the state of California. Reporting laws, requirements related to maintaining client confidentiality and boundaries, and recognizing the differing levels of legal and ethical obligations for licensed mental health practitioners and certified addiction counselors versus other voluntary recovery support providers will also be examined. CSU

ADS-152 Relapse Prevention

- 3 units SC
- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course provides an overview of the progressive and predictable warning signs of relapse in the addiction and recovery process. Skills and techniques used to develop a relapse prevention program will be covered. CSU

ADS-154 Dual Disorders

- 3 units SC
- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or Equiv.

This course presents an overview of the concepts and definitions related to co-occurring (dual) disorders, and the impact that co-occurring disorders have on addiction treatment and recovery. Emphasis will be placed on the various strategies that mental health and substance abuse professionals use to address co-occurring disorders with reference to the Diagnostic Statistical Manual of Mental Disorders (DSM). CSU

ADS-155 Diverse Communities and Social Services

- 3 units SC
- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course investigates the impact of health status, lifestyle and behavioral patterns, communication styles, socioeconomic status, personal prejudices, ethnic stereotyping, and cultural beliefs on individual and group access to social services. An evaluation of existing social services programs and effective strategies for cross- and inter-cultural work in social services, with particular emphasis on addiction prevention, intervention, and treatment services will be examined. CSU

ADS-168 Group Process and Leadership

- 3 units SC
- 54 hours lecture per term
- Prerequisite: ADS-102 and HSCI-127 or equivalents
- Recommended: ADS-151 and 170 or equivalents

This course explores the theories and practices of group process, group dynamics, and group facilitation. Administrative tasks related to group leadership responsibilities, facilitating various types of addiction groups, and the stages of cohesion are presented. Basic observation and communication skills needed for facilitating support groups for people with histories of substance abuse, co-dependence, and other addictive behaviors will be developed. CSU

ADS-170 Introduction to Codependency and Family Issues

3 units SC

- 54 hours lecture per term
- Recommended: HSCI-127 and eligibility for ENGL-122 or equivalents

This course examines the biological, psychological, and sociological aspects of family systems, and the influence of addiction on the family. Close examination of family system variables, such as family structure, family roles, communication, and emotional bonding with a focus on how addiction impacts functional and dysfunctional patterns of behavior is provided. CSU

ADS-171 ADS-Field Work I

5.5 units SC

- 54 hours lecture/135 hours laboratory per term
- Prerequisite: ADS-102, HSCI-127 and eligibility for ENGL-122 or equivalents
- Note: It is highly recommended that a student complete at least 10 units in the addiction studies program before entering this course.

Students will gain first-hand experience by working in community clinical settings that serve clients with various substance abuse problems. Emphasis is placed on the development of clinical competency through assisting in assessment, treatment planning, group facilitation, record-keeping, and general agency procedures. Students will have on-site supervision and then debrief their experiences with fellow students by sharing what they learned, as well challenges of providing substance abuse services in a community clinic setting. Additionally, students will explore possible locations for employment, learn interviewing skills, and develop an understanding of the necessary requirements for state and other professional certifications. CSU

ADS-172 ADS-Field Work II

5.5 units SC

- 54 hours lecture/135 hours laboratory per term
- Prerequisite: ADS-171 or equivalent
- Co-requisite: ADS-151 or equivalent (may be taken previously)

Students will continue to gain first-hand experience by working in community clinical settings that serve clients with various substance abuse problems to develop clinical competency by facilitating groups, utilizing case-management skills, and examining the clinical procedures related to addiction treatment. Students will have on-site supervision, and then debrief their experiences with fellow students by sharing what they learned, as well as the challenges of providing substance abuse services in a community clinic setting. Students will also prepare for state certification and employment by reviewing Technical Assistance Publication (TAP) 21 addiction counseling competency guidelines and refining interview skills. CSU

ADS-299 Student Instructional Assistant

.5-3 units SC

- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

ADMINISTRATION OF JUSTICE – ADJUS

Obed Vazquez, Dean

Social Sciences Division

Faculty Office Building, Room 136

Possible career opportunities

Law enforcement study prepares students for a career as a police officer, sheriff's deputy, California Highway Patrol Officer (CHP), Federal Bureau of Investigation Agent (FBI), Drug Enforcement Administration Agent (DEA), Secret Service Agent, U.S. Border Patrol Agent, Fish and Game Warden, or Customs Agent. Corrections study prepares students for a career as a correctional officer, parole officer, probation officer, youth counselor, prison warden, or criminologist. A pre-law specialization prepares students for further study towards the advanced degree required to become a lawyer, district attorney, public defender, defense lawyer, judge or bailiff.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in science degree Administration of justice**Students completing the program will be able to...**

- demonstrate an understanding of the three parts of the criminal justice system and how they interrelate.
- demonstrate a working knowledge of the theory and practice of criminal law.
- demonstrate an understanding of the legal procedures of the United States and California criminal justice systems.

Administration of Justice

Students wishing to pursue a career in the field of law enforcement, crime scene investigation, probation, parole, corrections, private security, law, criminal behavior studies, rehabilitation programs or the like should consider this two-year program. All students planning to seek employment with a government or private agency after they graduate should speak with a faculty member of the department in order to review the special requirements of the various agencies.

To earn an associate in science degree, students must complete each required course with a "C" grade or higher. Degree requirements can be completed by attending classes in the day, the evening, or both. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

<i>major requirements:</i>	<i>units</i>
ADJUS-120 Introduction to the Administration of Justice ...	3
ADJUS-121 Criminal Law.....	3
ADJUS-122 Criminal Procedure	3
ADJUS-124 Elements of Corrections	3
ADJUS-130 Cultural Diversity in Criminal Justice.....	3
ADJUS-221 Legal Aspects of Evidence	3
ADJUS-284 Interviewing and Counseling.....	3

plus at least 7-9 units from:

ADJUS-125 Report Preparation for Criminal Justice.....	3
ADJUS-139 Gangs and Threat Groups in America.....	3
ADJUS-203 Crime Scene Investigation	4
ADJUS-222 Criminal Investigation.....	3
ADJUS-230 Juvenile Procedures.....	3
ADJUS-250 Terrorism and Homeland Security.....	3
ADJUS-260 The Police: Roles, Methods, and Operations...	3
ADJUS-270 Personal Self Defense and Firearms	2
ADJUS-280 Community-Based Corrections.....	3
ADJUS-298 Independent Study.....	0.5-3

total minimum units for the major 28

Associate in science in administration of justice for transfer

Students completing the program will be able to...

- achieve an advanced level of understanding about the administration of justice, the law, crime and delinquency, and working with diverse communities.
- identify and increase understanding of major social issues relating to crime, criminals, prevention and control, and victims.
- focus on police and social control, law and courts, corrections, juvenile justice, and special problems, trends, and contemporary topics in this field.

A DVC administration of justice student who has earned the associate in science in administration of justice for transfer (AS-T) will be granted priority admission to the CSU into a similar baccalaureate (BA) degree program as long as the student meets all prescribed admission requirements.

The associate in science in administration of justice for transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education pattern (CSU GE); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Some courses in the major satisfy both major and CSUGE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

<i>major requirements:</i>	<i>units</i>
ADJUS-120 Introduction to the Administration of Justice	3
ADJUS-121 Criminal Law.....	3

plus at least 6 units from:

ADJUS-122 Criminal Procedure	3
ADJUS-124 Elements of Corrections	3
ADJUS-130 Cultural Diversity in Criminal Justice.....	3
ADJUS-203 Crime Scene Investigation	4
ADJUS-221 Legal Aspects of Evidence	3
ADJUS-222 Criminal Investigation.....	3
ADJUS-230 Juvenile Procedures.....	3

plus at least 6 units from:

any course not used above or:

ADJUS-250 Terrorism and Homeland Security.....	3
POLSC-121 Introduction to United States Government	3
PSYCH-101 Introduction to Psychology	3
SOCIO-120 Introduction to Sociology.....	3
BUS-240 Business Statistics.....	3
or	
MATH-142 Elementary Statistics with Probability	4
or	
MATH-144 Statway II.....	4

total minimum units for the major 18

Certificate of achievement Administration of justice

Students completing the program will be able to...

- demonstrate a working knowledge of the basic components of the criminal justice system.
- demonstrate a working knowledge of the theory and practice of criminal law.
- demonstrate an understanding of the legal procedures of the United States and California criminal justice systems.

Students wishing to pursue a career in the field of law enforcement, crime scene investigation, probation, parole, corrections, private security, law, criminal behavior studies, rehabilitation programs or the like should consider this two-year program. All students planning to seek employment with a government or private agency after they graduate should speak with a faculty member of the department in order to review the special requirements of the various agencies.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Certificate requirements can be completed by attending classes in the day, the evening, or both.

<i>required courses:</i>	<i>units</i>
ADJUS-120 Introduction to the Administration of Justice ...	3
ADJUS-121 Criminal Law	3
ADJUS-122 Criminal Procedure	3
ADJUS-124 Elements of Corrections	3
ADJUS-130 Cultural Diversity in Criminal Justice	3
ADJUS-221 Legal Aspects of Evidence	3
ADJUS-284 Interviewing and Counseling.....	3

plus at least 7-9 units from:

ADJUS-125 Report Preparation for Criminal Justice	3
ADJUS-139 Gangs and Threat Groups in America	3
ADJUS-203 Crime Scene Investigation	4
ADJUS-222 Criminal Investigation.....	3
ADJUS-230 Juvenile Procedures.....	3
ADJUS-250 Terrorism and Homeland Security	3
ADJUS-260 The Police: Roles, Methods, and Operations... 3	
ADJUS-270 Personal Self Defense and Firearms	2
ADJUS-280 Community-Based Corrections.....	3
ADJUS-298 Independent Study.....	0.5-3

total minimum required units 28

Certificate of accomplishment Administration of justice Community relations specialist

Students completing the program will be able to...

- demonstrate an understanding of the three parts of the criminal justice system and how they interrelate.
- demonstrate an understanding of the theoretical and conceptual overview of multicultural concepts and issues as they relate to the criminal justice system.
- demonstrate an understanding of the history, culture, organization of criminal gangs and their social and criminal impact upon society.

This certificate prepares students for entry-level careers either as law enforcement or civilian positions that require a better than average understanding of multicultural issues as they impact the community and the criminal justice system. Anyone contemplating a career in the criminal justice field should consider taking these courses. Citizens active in their community such as teachers, activists, political and social leaders, and members of cultural organizations will find this series of courses an excellent resource in better understanding the issues that impact their communities.

To earn a certificate of accomplishment, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Certificate requirements may be completed by a combination of day, evening or weekend courses listed in the Administration of Justice (AJ) Program. Successful completion of the certificate of accomplishment requirements also counts towards the completion of the AJ certificate of achievement.

<i>required courses:</i>	<i>units</i>
ADJUS-120 Introduction to the Administration of Justice ...	3
ADJUS-130 Cultural Diversity in Criminal Justice.....	3
ADJUS-139 Gangs and Threat Groups in America.....	3

plus at least 3 units from:

ADJUS-280 Community-Based Corrections.....	3
ADJUS-284 Interviewing and Counseling.....	3

total minimum required units 12

Certificate of accomplishment Administration of justice Correctional specialist

Students completing the program will be able to...

- demonstrate familiarity with the basic components of the criminal justice system with special emphasis on the correctional system.
- demonstrate an understanding of the history, culture, organization of criminal gangs and their social and criminal impact on society.
- demonstrate a working knowledge of the organization, functions and jurisdiction of juvenile agencies and processing and detention of juveniles.

This certificate prepares students for entry-level careers in corrections such as working in prisons, jails, probation officers, parole agent, and counselors working with adult offenders. Completion of this certificate will greatly improve the opportunity for employment in these fields.

To earn a certificate of accomplishment, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Certificate requirements may be completed by a combination of day, evening or weekend courses listed in the Administration of Justice (AJ) Program. Successful completion of the certificate of accomplishment requirements also counts towards the completion of the AJ certificate of achievement.

<i>required courses:</i>	<i>units</i>
ADJUS-120 Introduction to the Administration of Justice ...	3
ADJUS-124 Elements of Corrections	3
ADJUS-139 Gangs and Threat Groups in America.....	3
ADJUS-284 Interviewing and Counseling.....	3
total minimum required units	12

**Certificate of accomplishment
Administration of justice
Crime scene investigator**

Students completing the program will be able to...

- A. demonstrate an understanding of the three parts of the criminal justice system and how they interrelate.
- B. identify, collect, package and analyze physical evidence from a crime scene.
- C. conduct a successful criminal investigation using interviews, interrogation and case preparation.

This certificate prepares students for entry-level careers as crime scene investigators, criminal analysts, and fingerprint examiners, criminalists in limited areas of expertise, crime scene photographers, private security investigators, and criminal investigators. It also is a foundation for those students who wish to pursue advanced careers as criminal profilers or advanced criminalists. Completion of this certificate will greatly improve the opportunity for employment.

To earn a certificate of accomplishment, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Certificate requirements may be completed by a combination of day, evening or weekend courses listed in the Administration of Justice (AJ) Program. Successful completion of the certificate of accomplishment requirements also counts towards the completion of the AJ certificate of achievement.

<i>required courses:</i>	<i>units</i>
ADJUS-120 Introduction to the Administration of Justice ...	3
ADJUS-203 Crime Scene Investigation	4
ADJUS-222 Criminal Investigation.....	3
ADJUS-260 The Police: Roles, Methods, and Operations...	3
total minimum required units	13

**Certificate of accomplishment
Administration of justice
Criminal law specialist**

Students completing the program will be able to...

- A. demonstrate an understanding of the three parts of the criminal justice system and how they interrelate.
- B. demonstrate a working knowledge of the theory and practice of criminal law.
- C. demonstrate an understanding of the legal procedures of the United States and California criminal justice systems.

This certificate prepares a student for entry-level careers in many areas of the criminal justice system where a basic understanding of statutory and procedural criminal law is necessary. Examples of these positions would be law enforcement officers, lawyers, investigators, correctional personnel and private and corporate security. Anyone choosing a career in the criminal justice field should complete this certificate as a minimum.

To earn a certificate of accomplishment, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Certificate requirements may be completed by a combination of day, evening or weekend courses listed in the Administration of Justice (AJ) Program. Successful completion of the certificate of accomplishment requirements also counts towards the completion of the AJ certificate of achievement.

<i>required courses:</i>	<i>units</i>
ADJUS-120 Introduction to the Administration of Justice ...	3
ADJUS-121 Criminal Law.....	3
ADJUS-122 Criminal Procedure	3
ADJUS-221 Legal Aspects of Evidence	3
total minimum required units	12

**Certificate of accomplishment
Administration of justice
Juvenile counseling**

Students completing the program will be able to...

- A. demonstrate an understanding of the three parts of the criminal justice system and how they interrelate.
- B. demonstrate an understanding of the history, culture, organization of criminal gangs and their social and criminal impact on society.
- C. demonstrate a working knowledge of the organization, functions and jurisdiction of juvenile agencies and processing and detention of juveniles.

This certificate prepares students for entry-level careers working with juvenile offenders, crime prevention, juvenile correctional facilities, and juvenile counseling and rehabilitation programs. Since juveniles commit most crimes, law enforcement officers should have a good understanding of the juvenile justice system. Those persons wishing to work as probation officers or parole officers should strongly consider taking these courses to greatly improve their opportunity for employment.

To earn a certificate of accomplishment, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Certificate requirements may be completed by a combination of day, evening or weekend courses listed in the Administration of Justice (AJ) Program. Successful completion of the certificate of accomplishment requirements also counts towards the completion of the AJ certificate of achievement.

<i>required courses:</i>	<i>units</i>
ADJUS-120 Introduction to the Administration of Justice ...	3
ADJUS-124 Elements of Corrections	3
ADJUS-139 Gangs and Threat Groups in America.....	3
ADJUS-230 Juvenile Procedures.....	3
ADJUS-284 Interviewing and Counseling.....	3
total minimum required units	15

Certificate of accomplishment Administration of justice Patrol specialist

Students completing the program will be able to...

- demonstrate an understanding of the three parts of the criminal justice system and how they interrelate.
- gather, organize and prepare written reports for law enforcement and correctional activities.
- demonstrate proficiency with handguns and shotguns, an understanding of personal safety and defensive tactics and their legal ramifications.

This certificate prepares students for entry-level careers as law enforcement officers in federal, state, and local agencies as well as private and corporate security. After completing this certificate, students contemplating enrolling in the POST academies will have a solid foundation that will help to ensure academy success. Students entering private security will have much more training than is required by state law. Completion of this certificate will also give the student a greatly improved opportunity for employment.

To earn a certificate of accomplishment, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Certificate requirements may be completed by a combination of day, evening or weekend courses listed in the Administration of Justice (AJ) Program. Successful completion of the certificate of accomplishment requirements also counts towards the completion of the AJ certificate of achievement.

<i>required courses:</i>	<i>units</i>
ADJUS-120 Introduction to the Administration of Justice ...	3
ADJUS-125 Report Preparation for Criminal Justice.....	3
ADJUS-139 Gangs and Threat Groups in America.....	3
ADJUS-222 Criminal Investigation.....	3
ADJUS-260 The Police: Roles, Methods, and Operations... 3	
ADJUS-270 Personal Self Defense and Firearms	2
total minimum required units	17

ADJUS-120 Introduction to the Administration of Justice

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Credit by examination option available

This course presents the evolution, history and philosophy of the administration of justice. Topics presented include the American system of justice and the various subsystems, the roles and interrelationships of criminal justice agencies, concepts of crime accusations, punishments, and rehabilitation, and issues pertaining to ethics, education, and training for participants in the criminal justice system. C-ID AJ 110, CSU, UC

ADJUS-121 Criminal Law

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Credit by examination option available

This course presents the historical development and philosophy of American law, statutory law, including classification, definitions and legality, case and constitutional law as it applies to situations and individuals in the justice system, and methodology and concepts of law and their role as a social force. The course emphasizes California criminal statutes. C-ID AJ 120, CSU, UC

ADJUS-122 Criminal Procedure

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Credit by examination option available

This course examines legal processes from pre-arrest, arrest, trial, sentencing and correctional procedures; a review of the history of case and common law; conceptual interpretations of law as reflected in course decisions; a study of case law methodology and case research as the decisions impact upon the procedures of the justice system. California law and procedures are emphasized. C-ID AJ 122, CSU

ADJUS-124 Elements of Corrections

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is an introduction to major types of criminal behavior, patterns of career offenders, causal factors of crime and delinquency, and methods used in the justice system to deal with violators. Emphasis is placed on the changing roles of corrections as practiced by law enforcement, courts, and correctional agencies. C-ID AJ 200, CSU

ADJUS-125 Report Preparation for Criminal Justice

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course introduces the practical aspects of gathering, organizing, and preparing written reports used in the criminal justice system. Topics include various techniques of communicating facts, information, and ideas in a simple, clear, and logical manner. Students practice note-taking, report writing, and presenting testimony in court. CSU

ADJUS-126 Leadership and Ethics

- 3 units SC
- 54 hours lecture per term
 - Eligibility for ENGL-122 or Equivalent

This course is an in-depth analysis of ethics and leadership within the criminal justice system and its various public service organizations. Topics include the history, philosophy, theories, and evolution of leadership, ethics, and professional standards and their impact on employees and the individuals and communities they serve. The critical importance of decision making and discretion within the criminal justice system and the interplay of values, ethics, morals and professional standards is emphasized. This course examines the theories of leadership within various institutions, the supervision and leadership interconnections with ethics and professional standards within organizations, the practical aspects of leadership and the reality of obstacles and challenges faced by employees, and the legal and civil ramifications of leadership and professional conduct and standards within criminal justice and public organizations. The course also investigates recent negative national trends and aberrational incidents in criminal justice agencies and studies what the future holds for these organizations. C-ID LPPS 120, CSU, UC

ADJUS-130 Cultural Diversity in Criminal Justice

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent
 - Note: Credit by examination option available

This course presents a theoretical and conceptual overview of multicultural concepts and issues, including those related to gender, age and sexual preference, as applied in the criminal justice system. Challenges related to an increasingly diverse population and strategies to overcome them, particularly in relation to the maintenance of social order, are examined. C-ID AJ 160, CSU, UC

ADJUS-139 Gangs and Threat Groups in America

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course presents an introduction to modern criminal gangs and terrorist organizations, their philosophy, history, structure, impact on the community and the criminal justice system. Legal codes and prosecution of gang, terrorist and other criminal organization members will be covered. This course also explores the evaluation of prison gangs and their impact on the community. Also covered is an examination of prevention and treatment programs in the community and in the criminal justice institutions. CSU

ADJUS-150 Topics in Administration of Justice

- .3-4 units SC
- Variable hours

A supplemental course in administration of justice to provide a study of current concepts and problems in the administration of justice. Specific topics will be announced in the schedule of classes. CSU

ADJUS-203 Crime Scene Investigation

- 4 units LR
- 54 hours lecture/54 hours laboratory per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course presents an in-depth analysis and discussion of the nature and significance of various types of physical evidence commonly found at crime scenes. The course combines theoretical concepts associated with the use of physical evidence in the forensic setting with student involvement in the processing of simulated crime scenes. Areas of emphasis include: (1) the use of physical evidence in the forensic setting, (2) types of physical evidence, (3) the identification, collection and packaging of physical evidence, (4) principles of crime scene photography, (5) crime scene sketching, (6) evidence collection techniques: casting shoe and tool marks, lifting latent fingerprints and (7) the preservation of trace evidence, i.e. physiological fluids, hair, soil, fibers, glass, etc. C-ID AJ 150, CSU

ADJUS-221 Legal Aspects of Evidence

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent
 - Note: Credit by examination option available

This course covers the origin, development, philosophy and constitutional basis of evidence; procedural considerations affecting arrest, search and seizure, kinds and degrees of evidence and rules governing admissibility; judicial decisions interpreting individual rights and case studies. C-ID AJ 124, CSU

ADJUS-222 Criminal Investigation

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Credit by examination option available

This course presents fundamentals of investigation; crime scene search and recording; collection and preservation of physical evidence; scientific aids; modus operandi; sources of information; interviews and interrogation; follow-up; ethical issues for investigators; and case preparation. C-ID AJ 140, CSU

ADJUS-230 Juvenile Procedures

3 units LR

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Credit by examination option available

This course examines the organization, function, and jurisdiction of juvenile agencies; the processing and detention of juveniles; juvenile case disposition; juvenile statutes and court procedures. C-ID AJ 220, CSU

ADJUS-250 Terrorism and Homeland Security

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is an introduction to contemporary terrorism and its relation to homeland security. There will be an emphasis on the growing threat of homegrown violent extremism and weapons of mass destruction. Motivational factors of international and domestic terrorism organizations, the basic elements of government intelligence, prevention measures, responses to terrorism, and disciplines within the counter-terrorism profession will be discussed. This course meets the California Bureau of Security and Investigative Services requirement for training in weapons of mass destruction. CSU

ADJUS-260 The Police: Roles, Methods, and Operations

3 units LR

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Credit by examination option available

This course presents the responsibilities, techniques, purpose and methods of the police. Topics include routine patrol, crisis intervention, officer survival and investigation techniques. The effect of the police officer's decision making and judgment on the community will also be examined. CSU

ADJUS-270 Personal Self Defense and Firearms

2 units SC

- 18 hours lecture/54 hours laboratory per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Participation in vigorous physical activity and a payment of a mandatory range fee required. Felony conviction prohibits enrollment.

This course provides training in personal self-defense and the use of handguns, pepper spray and Electronic Immobilization Devices (EID.) This course is appropriate for anyone desiring knowledge and proficiency in personal safety, defensive tactics, and firearms and is similar in design to police academy training. The course will also include legal and moral aspects of the use of force and weapons with an emphasis on safety. CSU

ADJUS-280 Community-Based Corrections

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents an introduction to the philosophy and history of community-based corrections including legal mandates, relations to courts, basic procedures, and common treatment approaches. Topics include legal codes affecting probation and parole, evaluation of the prison system and inmate community, parole supervision, and the examination of the outcomes of the contemporary prison and parole system. There will be a specific emphasis on California's probation, institutions and parole system. CSU

ADJUS-281 Community Policing and Problem Solving

3 units SC

- 54 hours lecture per term

This course focuses on the history and evolution of the relationship between the criminal justice system and the community in the United States. The roles and interrelationship of all criminal justice agencies, public and private agencies, and the community will be addressed. Topics include the concepts of crime control and prevention, police and government transparency, community partnerships, input and oversight, community-based prosecution, incarceration and rehabilitation, and social justice. There will be open discussion of issues pertaining to ethics, education, and collaboration between participants in the community and the criminal justice system. CSU

ADJUS-284 Interviewing and Counseling

3 units LR

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course introduces the concepts and techniques of communication, casework and counseling as utilized by practitioners in the administration of justice field. It is recommended for students planning to enter, or for those already employed, within the administration of justice field. Emphasis is placed on interview and interrogation skills and methods as applied to investigation, counseling, and social work functions in policing and corrections. CSU

ADJUS-295 Occupational Work Experience Education in ADJUS

1-4 units SC

- May be repeated three times
- Variable hours
- Note: In order to enroll in ADJUS-295, students must be employed, register for the course, complete an online Employment Form, and participate in an orientation. Employment Form can be accessed at www.dvc.edu/wrkx. Incomplete grades are not awarded for this course.

ADJUS-295 is supervised employment that extends classroom learning to the job site and relates to the student's chosen field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Five hours work per week or seventy-five hours work per term is equal to one unit. Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

ADJUS-296 Internship in Occupational Work Experience Education in ADJUS

1-4 units SC

- May be repeated three times
- Variable hours
- Note: In order to enroll in the ADJUS-296 course, students must be interning or volunteering, register for the course, complete an online Employment Form, and participate in an orientation. The Employment Form can be accessed at www.dvc.edu/wrkx. Incomplete grades are not awarded for this course.

ADJUS-296 is a supervised internship in a skilled or professional level assignment in the student's major field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Internships may be paid, non-paid, or some partial compensation provided. Five hours work per week or seventy-five hours work per term is equal to one unit (paid) or one unit for four hours work per week or sixty hours per term (unpaid work). Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

ADJUS-298 Independent Study

.5-3 units SC

- Variable hours
- Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

ADJUS-299 Student Instructional Assistant

.5-3 units SC

- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

ALLIED HEALTH

See Biological science - BIOSC

ANTHROPOLOGY – ANTHR

Obed Vazquez, Dean

Social Sciences Division

Faculty Office Building, Room 136

Possible career opportunities

Anthropology is a basic component for careers like anthropologist, anthropology instructor, museum curator, population analyst, urban planner, social services consultation, and environmental impact analyst. Most career options require more than two years of college study.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in arts in anthropology for transfer

Students completing the program will be able to...

- demonstrate an understanding of core knowledge within the anthropology discipline.
- demonstrate the ability to communicate ideas clearly and persuasively in writing.
- demonstrate the ability to analyze a problem and draw correct inferences using qualitative and/or quantitative analysis.
- demonstrate the ability to evaluate theory and critique research within the anthropology discipline.

The anthropology program at Diablo Valley College offers students the opportunity to study humankind from the broadest biological, historical, and geographical perspectives. Anthropology is a multidisciplinary and yet holistic way to study all aspects of humanity, from biological origins to ways of social behavior, past and present. Anthropology presents to the student a world view that is personally enriching as well as practical. Courses in the program offer knowledge of social and cultural aspects of behavior, as well as the biological nature of humans. Courses included in the anthropology major are intended to give a general understanding of human biology, ecology, evolution, prehistory, and the nature of human cultures.

This curriculum is designed to provide an opportunity for the anthropology major to achieve an associate in arts degree while completing the requirements for transfer to a California State University (CSU) or other four-year college or university to earn a bachelor's degree in anthropology. A baccalaureate degree is recommended preparation for those considering professional careers in anthropology. Completion of this curriculum will demonstrate commitment to the field and provide comprehensive preparation for upper-division work.

The associate in arts in anthropology for transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education pattern (CSU GE); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Some courses in the major satisfy both major and CSUGE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

<i>major requirements:</i>	<i>units</i>
ANTHR-125 Introduction to Archaeology and Prehistory	3
ANTHR-130 Cultural Anthropology	3
ANTHR-140 Biological Anthropology.....	3

<i>plus at least 3 units from:</i>	
ANTHR-120 Magic, Witchcraft, and Religion in the Americas.....	3
ANTHR-135 Native Americans	3
ANTHR-141L Biological Anthropology Laboratory.....	1
GEOG-120 Physical Geography	3
BUS-240 Business Statistics.....	3
or	
MATH-142 Elementary Statistics with Probability.....	4

<i>plus at least 3 units from any course not used above or:</i>	
BIOSC-139 Human Anatomy.....	5
GEOG-125 Introduction to Geographic Information Systems (GIS).....	3
GEOL-120 Physical Geology.....	3
GEOL-122 Physical Geology Laboratory.....	1
PSYCH-215 Introduction to Research Methods in Psychology	3
SOCIO-123 Introduction to Social Research	3

<i>plus at least 3 units from any course not used above or:</i>	
ANTHR-115 Primate Evolution and Adaptation	3
ANTHR-126 Introduction to Archaeological Field Methods	3
GEOG-130 Cultural Geography	3
MUSIC-114 World Music	3
SOCIO-120 Introduction to Sociology.....	3
total minimum units for the major	18

ANTHR-115 Primate Evolution and Adaptation

- 3 units SC
- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course introduces the biology, behavior, ecology, and evolutionary history of the primate order. Emphasis is placed on the following topics: evolutionary theory; mammalian biology, anatomy, and osteology; primate behavior, ecology, and biogeography; primate evolutionary history; Paleoanthropology. CSU, UC

ANTHR-120 Magic, Witchcraft, and Religion in the Americas

- 3 units SC
- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents a cross-cultural, multi-cultural examination of the forms and functions of supernatural belief systems and associated rituals that have developed in various societies in the Americas. Basic ethnographic and archaeological concepts and methodologies will be introduced and applied to the assessment and analysis of selected New World cultural/religious traditions. Emphasis will be placed on understanding religious belief systems within their given social contexts. The course will also provide a comparative assessment of the major prehistoric and historic social and religious patterns that developed in the Americas. CSU, UC

ANTHR-125 Introduction to Archaeology and Prehistory

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is an introduction to the study of concepts, theories, data and models of anthropological archaeology that contribute to our knowledge of the human past. Students will study the nature of scientific inquiry; the history and interdisciplinary nature of archaeological research; dating techniques; methods of survey, excavation, analysis, and interpretation; cultural resource management; professional ethics; and selected cultural sequences. Emphasis is placed on reconstructing ancient life ways with the aim of understanding the development of social and technological complexity in the prehistoric and the historic past. C-ID ANTH 150, CSU, UC

ANTHR-126 Introduction to Archaeological Field Methods

3 units SC

- 18 hours lecture/108 hours laboratory per term
- Prerequisite: ANTHR-125 or equivalent (may be taken concurrently)
- Recommended: Eligibility for ENGL-122 or equivalent

This course provides training in surface survey, mapping, scientific excavation, classification and analysis of excavated material, writing interpretive reports, and preparation of museum exhibits. Aspects emphasized will depend on available archaeological opportunities in the Bay Area. Students will spend a significant portion of class time in the field. CSU, UC

ANTHR-130 Cultural Anthropology

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course explores how anthropologists study and compare human culture to understand the broad arc of human experience focusing on a set of central issues. Topics include how people around the world: make their living; organize themselves socially, politically and economically; communicate; relate to each other through family and kinship ties; develop belief systems; apply gender, racial and ethnic identity labels; have shaped and been shaped by social inequalities such as colonialism; and navigate cultural change and processes of globalization that affect us all. Ethnographic case studies will be utilized to highlight similarities and differences. C-ID ANTH 120, CSU, UC

ANTHR-135 Native Americans

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is a survey of the Native American cultures that developed in North America. The course explores the effects of European contact, conquest, colonization, United States expansion, acculturation, U.S. Government policies, wars and treaties, and reservation life of Native Americans, as well as the past and present roles of Native Americans in U.S. society. CSU, UC

ANTHR-140 Biological Anthropology

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course introduces the concepts, methods of inquiry, and scientific explanations for biological evolution and their application to the human species. Issues and topics will include, but are not limited to, genetics, evolutionary theory, human variation and biocultural adaptations, comparative primate anatomy and behavior, and the fossil evidence for human evolution. The scientific method and the theory of biological evolution serve as foundations of the course. C-ID ANTH 110, CSU, UC

ANTHR-141L Biological Anthropology Laboratory

1 unit SC

- 54 hours laboratory per term
- Prerequisite: ANTHR-140 (may be taken concurrently) or equivalent
- Recommended: Eligibility for ENGL-122 or equivalent

This introductory laboratory course presents scientific methodology that is used to explore/experiment with topics found in introductory biological anthropology and primate evolution courses. Topics will include: paleontology, hands-on study of fossils, Mendelian and population genetics, human variability, forensics, medical anthropology, epidemiology, nonhuman primates, primate dental and skeletal anatomy, primatology, paleoanthropology, hominid dietary patterns, the study of hominids as bio-culturally adapted animals, and a survey of general methodologies utilized in biological anthropological research. C-ID ANTH 115L, CSU, UC

ANTHR-155 Topics in Anthropology

.3-4 units SC

- Variable hours

A supplemental course in anthropology to provide a study of current concepts and problems in anthropology and related disciplines. Specific topics will be announced in the schedule of classes. CSU

ANTHR-298 Independent Study

.5-3 units SC

- *Variable hours*
- *Note: Submission of acceptable educational contract to department and Instruction Office is required.*

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

ANTHR-299 Student Instructional Assistant

.5-3 units SC

- *Variable hours*
- *Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.*

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

ARABIC – ARABIC

Toni Fannin, Dean

Applied and Fine Arts Division

Business and Foreign Language Building, Room 204

Possible career opportunities

The study of Arabic can open up opportunities in communications, foreign trade and banking, transportation, government, the Foreign Service, tourism, library services, teaching, professional translating, journalism, and all levels of education, including university teaching. Most foreign language careers require more than two years of study.

ARABC-120 First Term Arabic

5 units SC

- *90 hours lecture per term*

This is a beginning level language course in Modern Standard Arabic. The course will be proficiency based, covering all four language skills (speaking, listening, reading, and writing). Considerable emphasis will be placed on active use of the language both in class and in daily homework assignments. The course introduces students to the basic phonology and script of the Arabic alphabet, as well as aspects of the sociolinguistics of Arab culture. Students will practice writing the letters in sequence while developing comprehension skills. CSU, UC

ARABC-121 Second Term Arabic

5 units SC

- *90 hours lecture per term*
- *Prerequisite: ARABC-120 or two years of high school study or equivalent*
- *Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.*

This is the second level language course in Modern Standard Arabic. This course is designed to build upon skills in reading and writing developed in ARABC-120. Students will gain increased vocabulary and a greater understanding of more complex grammatical structures. They will be able to approach prose, fiction, and non-fiction written in the language. Students will also increase their proficiency in Arabic script and sound system, widen their working vocabulary, learn key grammatical points, and practice conversation and dictation. Students deliver oral presentations and write academic papers in Arabic. A variety of Arabic texts covering many subjects of interest such as literature, classical writing, poetry, media reports, and news will be introduced. CSU, UC

ARABC-150 Topics in Arabic

.3-4 units SC

- *Variable hours*

A supplemental course in Arabic to provide a study of current concepts and problems in Arabic and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

ARABC-299 Student Instructional Assistant

.5-3 units SC

- *Variable hours*
- *Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.*

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

ARCHITECTURE – ARCHI

Joseph Gorga, Dean

Physical Sciences and Engineering Division

Physical Sciences Building, Room 263

Possible career opportunities

Students are provided with a strong background in spatial composition, design theory, and production methods that prepare them for employment as an architectural technician. Many general courses in the architecture program offer education in areas that are also applicable to an entry-level internship position performing manual or computer-aided drafting, furniture or cabinet design, or architectural rendering and illustration.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in science degree Architecture design

Students completing the program will be able to...

- A. communicate architectural concepts using graphic conventions and representational methods.
- B. demonstrate an understanding of drawing methods and graphic compositional techniques.
- C. construct physical models of architectural elements and spaces.
- D. demonstrate an understanding of building components, structures and systems in relation to design.
- E. identify notable architects, design concepts, canonical buildings and precedents in architecture.
- F. identify the historical and contemporary role of architects in the profession and related design fields.
- G. describe the role of environmental design, energy use and sustainable design practices in the profession and in buildings.
- H. utilize digital means of production, representation and/or digital fabrication methods for the creation and manipulation of architectural images and forms.

Students in the architectural design program will develop the necessary skills to analyze, modify or create architectural space and the abilities to present their ideas in graphic form using a variety of media. The program emphasizes spatial and architectural theories relating to design, architectural history, and methods of graphic composition and presentation.

The DVC architecture design major is intended for transfer. Students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to four-year institutions of their choice are met. Students who intend to transfer are advised to select General Education Option 2 (IGETC) or Option 3 (CSU GE). Option 1 (DVC General Education) is not generally advised.

To earn an associate in science degree with a major in architecture design, students must complete each course used to meet a major requirement with a "C" grade or higher, maintain an overall GPA of 2.5 or higher and complete all general education requirements as listed in the catalog. Many upper level architecture degree programs require specific physics, math and general education preparation. Please consult the transfer institution for required courses. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

<i>major requirements:</i>	<i>units</i>
ARCHI-120 Introduction to Architecture and Environmental Design	3
ARCHI-121 Architectural Design I	4
ARCHI-130 Architectural Graphics I	3
ARCHI-131 Architectural Graphics II	3
ARCHI-135 Digital Tools for Design	3
ARCHI-220 Architectural Design II	4
ARCHI-221 Architectural Design III	4
ARCHI-244 Architectural Practice and Working Drawings I	3
CONST-144 Materials of Construction.....	3

plus at least 3 units from:

ARCHI-110 Design-Build Workshop	1
ARCHI-136 Digital Tools for Architecture	3
ARCHI-156 History of World Architecture: Early Civilizations to Middle Ages	3
ARCHI-157 History of World Architecture: Middle Ages to 18th Century.....	3
ARCHI-158 History of World Architecture: 18th Century to Present	3
ARCHI-160 History of American Architecture	3
ARCHI-207 Environmental Control Systems	3

total minimum units for the major 33

Associate in science degree Architecture technology

Students completing the program will be able to...

- A. communicate architectural concepts using graphic conventions and representational methods.
- B. demonstrate an understanding of drawing methods and graphic compositional techniques.
- C. construct physical models of architectural elements and spaces.
- D. demonstrate an understanding of building components, structures and systems in relation to design.
- E. identify notable architects, design concepts, canonical buildings and precedents in architecture.
- F. identify the historical and contemporary role of architects in the profession and related design fields.
- G. describe the role of environmental design, energy use and sustainable design practices in the profession and in buildings.
- H. utilize digital means of production, representation and/or digital fabrication methods for the creation and manipulation of architectural images and forms.

The DVC architecture technology degree program offers students the opportunity to earn an associate in science degree in architecture technology, which prepares students for a career as an architectural intern, draftsman or designer. As an architecture technology student, students gain an in-depth understanding of the requirements and skills necessary for employment in an architect’s office.

Architectural interns, draftsmen or designers prepare technical and presentation drawings, draft copies of specifications and cost estimates, revise plans, trace details from various sources, operate printing machines, and assemble prints and other documents for projects. Graduates with these skills are also employed by landscape architects, industrial designers, interior designers, and engineers.

To earn an associate in science with a major in architecture technology, students must complete each course used to meet a major requirement with a “C” grade or higher and maintain an overall GPA of 2.5 or higher in the coursework required for the major. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

<i>major requirements:</i>	<i>units</i>
ARCHI-120 Introduction to Architecture and Environmental Design	3
ARCHI-126 Computer Aided Design and Drafting - AutoCAD.....	3
ARCHI-130 Architectural Graphics I	3
ARCHI-244 Architectural Practice and Working Drawings I.....	3
CONST-124 Construction Details and Specifications	3
CONST-135 Construction Processes: Residential	4
CONST-144 Materials of Construction.....	3

<i>plus at least 6 units from:</i>	
ARCHI-131 Architectural Graphics II	3
ARCHI-226 Computer Aided Drafting Design, Advanced Concepts - AutoCAD	3
ARCHI-296 Internship in Occupational Work Experience Education in ARCHI.....	2-3
CONST-116 Plane Surveying.....	4
CONST-181 Building Code Interpretation: Non-Structural.....	3
CONST-183 Title 24: Energy Conservation Codes	3
total minimum units for the major	28

**Certificate of achievement
Architecture design**

Students completing the program will be able to...

- A. communicate architectural concepts using graphic conventions and representational methods.
- B. demonstrate an understanding of drawing methods and graphic compositional techniques.
- C. construct physical models of architectural elements and spaces.
- D. demonstrate an understanding of building components, structures, and systems in relation to design.
- E. identify notable architects, design concepts, canonical buildings, and precedents in architecture.

- F. identify the historical and contemporary role of architects in the profession and related design fields.
- G. describe the role of environmental design, energy use and sustainable design practices in the profession and in buildings.
- H. utilize digital means of production, representation and/or digital fabrication methods for the creation and manipulation of architectural images and forms.

Students in the architectural design program will develop the necessary skills to analyze, modify, or create architectural space and the abilities to present their ideas in graphic form using a variety of media. The program emphasizes spatial and architectural theories relating to design, architectural history, and methods of graphic composition and presentation. This certificate provides a foundational core curriculum that prepares students for both accredited and non-accredited architectural degree programs at four-year colleges and universities, and also provides a strong foundation in core subjects for those who seek a career in the design field.

Students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to four-year institutions of their choice are met. To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a “C” grade or higher. Required courses are available in the day, and some are also offered in the evening.

<i>required courses:</i>	<i>units</i>
ARCHI-120 Introduction to Architecture and Environmental Design	3
ARCHI-121 Architectural Design I	4
ARCHI-130 Architectural Graphics I	3
ARCHI-131 Architectural Graphics II	3
ARCHI-135 Digital Tools for Architecture I	3
ARCHI-136 Digital Tools for Architecture II	3
ARCHI-220 Architectural Design II	4
total minimum required units	23

**Certificate of achievement
Architecture technology**

Students completing the program will be able to...

- A. communicate architectural concepts using graphic conventions and representational methods.
- B. demonstrate an understanding of drawing methods and graphic compositional techniques.
- C. construct physical models of architectural elements and spaces.
- D. demonstrate an understanding of building components, structures and systems in relation to design.
- E. identify notable architects, design concepts, canonical buildings and precedents in architecture.
- F. identify the historical and contemporary role of architects in the profession and related design fields.

Architecture

This program offers students the opportunity to earn a certificate of achievement in architecture technology, which prepares students for a career as an architectural intern, draftsman or designer. As an architecture technology student, students gain an in-depth understanding of the requirements and skills necessary for employment in an architect's office.

Architectural interns, draftsmen or designers prepare technical and presentation drawings, draft copies of specifications and cost estimates, revise plans, trace details from various sources, operate printing machines, and assemble prints and other documents for projects. Graduates with these skills are also employed by landscape architects, industrial designers, and engineers.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Required courses are available in the day, and some are also offered in the evening.

<i>required courses:</i>	<i>units</i>
ARCHI-120 Introduction to Architecture and Environmental Design	3
ARCHI-126 Computer Aided Design and Drafting - AutoCAD	3
ARCHI-130 Architectural Graphics I	3
ARCHI-244 Architectural Practice and Working Drawings I.....	3
CONST-124 Construction Details and Specifications	3
CONST-135 Construction Processes: Residential	4
CONST-144 Materials of Construction.....	3

plus at least 6 units from:

ARCHI-131 Architectural Graphics II	3
ARCHI-226 Computer Aided Drafting Design, Advanced Concepts - AutoCAD	3
ARCHI-296 Internship in Occupational Work Experience Education in ARCHI.....	2-3
CONST-116 Plane Surveying.....	4
CONST-181 Building Code Interpretation: Non-Structural.....	3
CONST-183 Title 24: Energy Conservation Codes	3
total minimum required units	28

ARCHI-110 Design-Build Workshop

1 unit SC

- *May be repeated three times*
- *72 hours laboratory per term*
- *Recommended: ARCHI-105 or equivalent*
- *Note: During spring term students will participate in the Cal Poly San Luis Obispo Design Village Competition. This allows each group of two-six students to design, build and live in their structure for three days in Poly Canyon. Multiple teams allowed, entry fees and material fees may apply.*

This is a design-build course for full-scale projects in wood, metal, and other materials to be designed and constructed by students working in teams in consultation with faculty. The course explores drawing, modeling, fabrication and assembly of full-scale architectural projects utilizing manual and computer controlled tools. CSU

ARCHI-119 Introduction to Technical Drawing

3 units SC

- *36 hours lecture/72 hours laboratory per term*
- *Note: Same as ENGTC-119. Credit by examination option available.*

This course presents an introduction to technical drawing. Topics include technical lettering and line work, geometric constructions, sketching and shape description, orthographic projection, dimensioning, section views, and auxiliary views. Students will gain experience using computers to produce technical drawings utilizing 3D modeling and orthographic computer aided design (CAD) drafting. An introduction to computer numerical control (CNC) prototyping and 3D printing is also covered. CSU, UC (credit limits may apply to UC - see counselor)

ARCHI-120 Introduction to Architecture and Environmental Design

3 units LR

- *36 hours lecture/72 hours laboratory per term*

This course is an introduction to the professional field of architecture, environmental design, landscape design, and urban planning. An overview of the practice of environmental design with concepts in design methods and theory, analysis and problem solving, history of design, and the profession is presented. There is an emphasis on beginning design projects utilizing drawing, model making and computers. CSU, UC

ARCHI-121 Architectural Design I

4 units SC

- *36 hours lecture/108 hours laboratory per term*
- *Prerequisite: ARCHI-120 or equivalent and ARCHI-130 (may be taken concurrently) or equivalent*
- *Recommended: ARCHI-135 or equivalent*

This first-level studio design course focuses on development of fundamental design skills and spatial theory. Topics include spatial qualities of architecture, composition and ordering systems, circulation and movement through space, daylighting, introductory structural systems, precedent studies and architectural theory. CSU, UC

ARCHI-126 Computer Aided Design and Drafting - AutoCAD

3 units SC

- *36 hours lecture/72 hours laboratory per term*
- *Recommended: ARCHI-119 or ENGTC-119 or equivalent*
- *Note: Same as ENGTC-126. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree. Credit by examination option available.*

This introductory course covers the fundamentals of AutoCAD, and its application to the creation of technical drawings. Hands-on training utilizing a comprehensive overview of the software package and its applications to technical drafting is emphasized. CSU, UC (credit limits may apply to UC - see counselor)

ARCHI-127 Introduction to Revit

- 3 units SC
- 36 hours lecture/54 hours laboratory per term
 - Note: Credit by examination option available.

This course presents an introduction to Revit software. Topics include fundamentals of the Revit operating environment, file structure, creation and organization of three-dimensional and two-dimensional construction models and documents. CSU

ARCHI-130 Architectural Graphics I

- 3 units LR
- 36 hours lecture/72 hours laboratory per term
 - Recommended: ARCHI-119 or ENGTC-119 or equivalent

This course is an introduction to architectural graphics related to projection systems, representation of architectural forms, rendering and shadow casting. An overview of history and methods of graphic representation used by architects and an application of drafting, drawing and rendering methods is presented. Problem-solving in orthographic and pictorial projection and drawing, architectural lettering, shades and shadows, and color rendering techniques are covered. There is an emphasis on mechanical drafting with pencil and beginning introduction to other art media. CSU, UC

ARCHI-131 Architectural Graphics II

- 3 units LR
- 36 hours lecture/72 hours laboratory per term
 - Prerequisite: ARCHI-130 or equivalent

This course is an advanced exploration of drawing techniques utilizing freehand and mechanical drawing methods of representation. Emphasis is placed on perspective drawing, shade and tone, color theory and composition. A continuing exploration of media for architectural rendering and representation is included. CSU, UC

ARCHI-135 Digital Tools for Design

- 3 units SC
- 36 hours lecture/72 hours laboratory per term
 - Note: ARCHI-135 and ARCHI-136 may be taken in any order.

This course is an introduction to the use of computers in design communication and representation. Topics presented include two-dimensional and three dimensional graphics utilizing Adobe Illustrator, InDesign, Photoshop, AutoCAD, Sketchup and other related programs. Students will be introduced to additional concepts in processing digital images, digital photography, scanning and printing. CSU

ARCHI-136 Digital Tools for Architecture

- 3 units SC
- 36 hours lecture/72 hours laboratory per term
 - Note: ARCHI-135 and ARCHI-136 may be taken in any order.

This course covers the use of computers in architectural design for advanced architectural graphics, three-dimensional (3-D) modeling, rendering and fabrication. Topics include Rhinoceros 3-D modeling software and V-Ray rendering software for architectural presentations, modeling of complex non-orthogonal geometries and architectural forms, fabrication utilizing the campus laser cutter and current computer graphics and architectural rendering standards. CSU

ARCHI-150 Topics in Architecture

- .3-4 units SC
- Variable hours

A supplemental course in architecture to provide a study of current concepts and problems in architecture. Specific topics to be announced in the schedule of classes. CSU

ARCHI-156 History of World Architecture: Early Civilizations to Middle Ages

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent
 - Note: ARCHI-156, 157 and 158 may be taken in any order

Architecture and urbanism from prehistory to the Middle Ages. Social, cultural, and physical conditions that influenced the built environment in the Mediterranean region, Europe, Asia, Africa, and Pre-Columbian Americas. Topics include early megalithic tombs and structures, Native American dwellings, architecture of Egypt, Mesopotamia, Persia and the Middle East, early civilizations of the Aegean, temples and cities of Greece, architecture and engineering of Rome, and early medieval structures after the fall of Rome. CSU, UC

ARCHI-157 History of World Architecture: Middle Ages to 18th Century

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent
 - Note: ARCHI-156, 157 and 158 may be taken in any order

This course covers world architecture and urbanism from the Middle Ages until the end of the 18th Century. Exploration of social, cultural, and physical conditions that influence the built environment of Europe, Asia and the Colonial Americas will be discussed. This course also covers the development of the Gothic cathedral, art and architecture of the Renaissance, Baroque design in Europe, architecture of Japan, China and India, historic buildings in Colonial America, and architectural developments in Europe during the 18th Century including Romanticism and later Greek and Gothic revival movements. CSU, UC

ARCHI-158 History of World Architecture: 18th Century to Present

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent
 - Note: ARCHI-156, 157 and 158 may be taken in any order

This course presents architecture and urbanism of the modern world, from the 18th century to the present. Exploration of social, cultural, and physical conditions influencing the built environment of Europe, Asia, and the Americas. Course covers American architectural contributions of Frank Lloyd Wright and the Chicago School of Architecture, Art Nouveau and the work of Gaudi with in-depth discussion of the influence of industrialization in architecture as well as topics in Russian Constructivism, 20th Century Modernism, Post-modernism and Deconstructivism. CSU, UC

ARCHI-160 History of American Architecture

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course is a survey of American architectural history from Native American dwellings to the present. The architectural influence of immigrant groups is presented, as well as the influences of architectural design movements in the United States through the course of history. CSU, UC

ARCHI-207 Environmental Control Systems

- 3 units SC
- 54 hours lecture per term
 - Recommended: MATH-090 or equivalent

This course covers the theory and application of climate, energy use and comfort as determinants of architectural form in small-scale buildings. Methods of ventilating, cooling, heating, and lighting will be discussed. Topics include passive solar techniques, cross and stack ventilation, daylighting and an introduction to mechanical systems for environmental control in buildings. There will be an emphasis on green building technology and sustainable practices in design of environmental control systems. CSU

ARCHI-220 Architectural Design II

- 4 units LR
- 36 hours lecture/108 hours laboratory per term
 - Prerequisite: ARCHI-121 and 135 or equivalents
 - Recommended: ARCHI-136 or equivalent

This course is a second-level studio design class continuing the study of architectural design. It focuses on development of fundamental design skills utilizing concepts related to site planning and site analysis with projects of greater complexity. A continuing investigation of topics in material qualities, general methods of assembly and construction, and human factors in design is covered. Methods of presentation and design development include drawing, model making, and architectural reviews and critiques. CSU, UC

ARCHI-221 Architectural Design III

- 4 units LR
- 36 hours lecture/108 hours laboratory per term
 - Prerequisite: ARCHI-136 (may be taken concurrently) or equivalent and ARCHI-220 or equivalent

This course is a third-level studio design class continuing the study of architectural design. It focuses on the application of advanced design skills and spatial theories to projects of greater architectural complexity. It includes design problems and projects incorporate advanced concepts of site planning, urban design, integration of structural and mechanical systems, programming and circulation. CSU, UC

ARCHI-226 Computer Aided Drafting Design, Advanced Concepts - AutoCAD

- 3 units SC
- 36 hours lecture/72 hours laboratory per term
 - Recommended: ARCHI-126 or ENGTC-126 or equivalent
 - Note: Same as ENGTC-226. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course covers the concepts and applications of constructing digital three-dimensional (3D) models and photorealistic renderings for presentation using AutoCAD, 3D Studio Max and Alias. Advanced techniques for surface, wireframe and solid modeling will be presented. Students will explore lighting, materials mapping and rendering as they apply to architecture, engineering and industrial design. CSU, UC (credit limits may apply to UC - see counselor)

ARCHI-244 Architectural Practice and Working Drawings I

- 3 units SC
- 36 hours lecture/72 hours laboratory per term
 - Recommended: ARCHI-130 and CONST-144 or equivalents

This course will cover methods and processes for the interpretation and creation of architectural working drawings, connections, details and specifications. The technical concepts related to the construction of small-scale structures and their representation in construction documents will be discussed. Students will be introduced to the design review process, along with Construction Specifications Institute (CSI) format, standards of practice and graphic representation, and the role of the architect, client and local governing agencies. CSU

ARCHI-296 Internship in Occupational Work Experience Education in ARCHI

1-4 units SC

- *May be repeated three times*
- *Variable hours*
- *Note: In order to enroll in the ARCHI-296 course, students must be interning or volunteering, register for the course, complete an online Employment Form, and participate in an orientation. The Employment Form can be accessed at www.dvc.edu/wrkx. Incomplete grades are not awarded for this course.*

ARCHI-296 is a supervised internship in a skilled or professional level assignment in the student's major field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Internships may be paid, non-paid, or some partial compensation provided. Five hours work per week or seventy-five hours work per term is equal to one unit (paid) or one unit for four hours work per week or sixty hours per term (unpaid work). Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

ARCHI-298 Independent Study

.5-3 units SC

- *Variable hours*
- *Note: Submission of acceptable educational contract to department and Instruction Office is required.*

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

ARCHI-299 Student Instructional Assistant

.5-3 units SC

- *Variable hours*
- *Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.*

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

ART – ART

Toni Fannin, Dean

Applied and Fine Arts Division

Business and Foreign Language Building, Room 204

Possible career opportunities

Career options include professions engaged in creating works of art as an artist, painter, sculptor, ceramist, engraver, printmaker, metal smith, illustrator, designer, muralist, and jeweler. Some careers requiring an education beyond the associate degree include: art critic, art dealer, educator, historian, arts administrator, advertising specialist, computer graphics illustrator, display designer, gallery director, and visual information specialist.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in arts degree Fine arts

Students completing the program will be able to...

- demonstrate basic drawing skills, color manipulation, and design principles in selected areas of emphasis.
- apply building techniques to create three-dimensional forms in selected areas of emphasis.
- demonstrate an understanding of the basic principles and concepts of analog and digital photography in selected areas of emphasis.
- critically evaluate multimedia design techniques and their uses in selected areas of emphasis.
- analyze works of art in terms of their historical circumstances and cultural values.
- employ critical thinking skills regarding their artwork and the artwork of others.

The associate in arts degree in fine arts offers students a curricular program for studying a variety of beginning courses within the field of art practice. The student with an associate in arts degree in fine arts is prepared for upper division work in the major at four-year institutions. The major is available at UC and CSU systems, the San Francisco Art Institute, the California College of Art, and at other colleges of art and schools of design. The fine arts curriculum develops a student's critical thinking skills, hones problem-solving skills, and establishes visual literacy. Career opportunities in fine arts include: exhibiting artist, art critic, art dealer, educator, art historian, graphic designer, photographer, sculptor, ceramist, jeweler, printmaker, painter, art illustrator, art technician, museum curator, art journalist, arts administrator, product designer, advertising specialist and other professions in creative endeavor.

Art

The fine arts major is a two-year degree program of transferable courses open to all students. The program requirements are designed for those interested in art as professional practice and as preparation for transfer. The major has three components. The first component is a core of two required foundations fine arts studio courses. The second component is two required art history courses. The third component offers students choices in 10 emphasis areas. Students may select an emphasis in drawing, painting, sculpture, photography, printmaking, ceramics, art digital media, graphic design, art history, or metalsmithing, but are encouraged to choose within a wide range of these beginning courses for transfer. Fine arts faculty and staff are dedicated to assisting students in exploring job opportunities, internships, and transferring to four-year institutions of higher learning.

The DVC fine arts major is intended for transfer. Students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to four-year institutions of their choice are met. Students who intend to transfer are advised to select General Education Option 2 (IGETC) or Option 3 (CSU GE). Option 1 (DVC General Education) is not generally advised.

To earn an associate in arts degree with a major in fine arts, students must complete each course used to meet a major requirement with a "C" grade or higher, maintain an overall GPA of 2.5 or higher in the coursework required for the major and complete all general education requirements as listed in the catalog. Degree requirements may be completed by attending classes in the day, evening, or weekends. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

<i>major requirements:</i>	<i>units</i>
ART-101 Introduction to Two-Dimensional Design	3
ART-102 Introduction to Three-Dimensional Design and Sculpture.....	3

<i>plus at least 6 units from:</i>	
ARTHS-193 History of Asian Art	3
ARTHS-195 History of Prehistoric and Ancient Art	3
ARTHS-196 History of Medieval and Renaissance Art	3
ARTHS-197 History of Baroque to 20th Century Art	3
ARTHS-199 Contemporary Art History.....	3

plus at least 12 units from a minimum of three areas of specialization:*

art history	
ARTHS-193 History of Asian Art	3
ARTHS-195 History of Prehistoric and Ancient Art	3
ARTHS-196 History of Medieval and Renaissance Art	3
ARTHS-197 History of Baroque to 20th Century Art	3
ARTHS-199 Contemporary Art History.....	3

ceramics	
ART-151 Visual Theory and Practice - Ceramic Art	3
ART-152 Wheel-Thrown Pottery I	3
ART-153 Wheel-Thrown Pottery II	3
ART-154 Hand-Built Ceramics.....	3
ART-155 Ceramic Sculpture I	3
ART-156 Figurative Ceramics I	3
ART-252 Wheel-Thrown Pottery III	3

ART-253 Wheel-Thrown Pottery IV	3
ART-254 Hand-Built Ceramics II.....	3
ART-255 Ceramic Sculpture II.....	3
ART-256 Figurative Ceramics II	3

color	
ART-103 Visual Theory and Practice - Color Theory	3

digital media	
ARTDM-105 Introduction to Digital Imaging	3
ARTDM-112 Digital Imaging for the Artist	3
ARTDM-117 Digital Illustration.....	3
ARTDM-136 Introduction to Digital Photography.....	3
ARTDM-140 Motion Graphics.....	3
ARTDM-160 3D Modeling and Animation I.....	3
ARTDM-161 3D Modeling and Animation II.....	3
ARTDM-171 Web Design I	3
ARTDM-214 Introduction to Graphic Design	3

drawing	
ART-105 Drawing I.....	3
ART-106 Drawing and Color	3
ART-107 Figure Drawing I	3
ART-108 Figure Drawing II	3

other	
ART-135 Art Gallery/Museum Management	3
ARTDM-224 Typography.....	3

metalsmithing	
ART-146 Metalsmithing and Jewelry I	3
ART-147 Metalsmithing and Jewelry II	3

painting	
ART-120 Watercolor I	3
ART-121 Watercolor II	3
ART-126 Painting I: Introduction to Painting	3
ART-127 Painting II: Intermediate Painting	3
ART-128 Painting Concepts and Theme Development... ..	3
ART-129 Advanced Painting	3
ART-130 Figure Painting	3
ART-131 Painting and Abstraction.....	3

photography	
ART-160 Photography I.....	3
ART-161 Photography II	3
ARTDM-136 Introduction to Digital Photography.....	3

printmaking	
ART-109 Printmaking: Monotype.....	3
ART-110 Introduction to Printmaking	3
ART-111 Printmaking: Etching I	3
ART-112 Printmaking: Etching II	3
ART-114 Printmaking: Woodblock.....	3
ART-116 Printmaking: Stencil and Screen Print	3

sculpture	
ART-138 Sculpture I	3
ART-139 Sculpture II	3
ART-144 Metal Casting Techniques I.....	3
ART-145 Metal Casting Techniques II.....	3

total minimum units for the major 24

**Note: There may be no duplication of course units between major requirements and restricted elective courses.*

Associate in arts in studio arts for transfer

Students completing the program will be able to...

- demonstrate proficiency in basic skills and techniques related to two-dimensional media, and apply the elements and principles of design in visual problem solving, the creation of art, and projects in selected areas of emphasis.
- demonstrate proficiency in basic skills and techniques related to three-dimensional media, and apply the elements and principles of design in the creation of forms in selected areas of emphasis.
- apply critical thinking skills to the critique and evaluation of their artwork and the artwork of others.
- analyze works of art in terms of their historical circumstances and cultural values.

The associate in arts in studio arts for transfer offers students a curricular program for studying a variety of beginning courses within the field of art practice. The student with associate in arts in studio arts for transfer is prepared for upper division work in the major at four-year institutions. The curriculum develops a student's critical thinking skills, hones problem-solving skills, and establishes visual literacy.

The associate in arts in studio arts for transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education pattern (CSU GE); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Some courses in the major satisfy both major and CSU GE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

major requirements:

	<i>units</i>
ART-101 Introduction to Two-Dimensional Design	3
ART-102 Introduction to Three-Dimensional Design and Sculpture	3
ART-105 Drawing I.....	3
ARTHS-196 History of Medieval and Renaissance Art	3
ARTHS-197 History of Baroque to 20th Century Art.....	3

plus at least 3 units from:

ARTHS-193 History of Asian Art	3
ARTHS-195 History of Prehistoric and Ancient Art.....	3
ARTHS-199 Contemporary Art History.....	3

plus at least 9 units from:

applied design

ART-146 Metalsmithing and Jewelry I	3
ART-147 Metalsmithing and Jewelry II	3

ceramics

ART-152 Wheel-Thrown Pottery I	3
and	
ART-154 Hand-Built Ceramics I.....	3
ART-153 Wheel-Thrown Pottery II	3
ART-155 Ceramic Sculpture I	3
ART-156 Figurative Ceramics I	3

color

ART-103 Visual Theory and Practice - Color Theory	3
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digital art

ARTDM-112 Digital Imaging for the Artist	3
ARTDM-171 Web Design I	3
ARTDM-214 Introduction to Graphic Design	3

drawing

ART-106 Drawing and Color	3
ART-107 Figure Drawing I	3
ART-108 Figure Drawing II	3

other media

ARTDM-224 Typography.....	3
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painting

ART-120 Watercolor I	3
ART-126 Painting I: Introduction to Painting	3
ART-127 Painting II: Intermediate Painting.....	3

photography

ART-160 Photography I.....	3
ART-161 Photography II	3

printmaking

ART-109 Printmaking: Monotype.....	3
ART-110 Introduction to Printmaking	3
ART-111 Printmaking: Etching I	3

sculpture

ART-138 Sculpture I	3
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total minimum units for the major **27**

**Certificate of achievement
Ceramics**

Students completing the program will be able to...

- A. identify and apply the formal design elements of art.
- B. create original works of ceramic art.
- C. create a portfolio demonstrating ideas in a broad range of ceramic techniques.
- D. formally compare the attributes of ceramics and other art forms.
- E. employ critical thinking to analyze ceramic art works in terms of historical context and cultural values.

A certificate of achievement in ceramics offers a variety of beginning courses within the field of three-dimensional art. The program will introduce both techniques and concepts of ceramics in an academic context. The program requirements are designed for those interested in ceramics as professional practice and provide exposure to the discipline that may help students decide to continue their studies at a four year institution. The ceramics major is available at UC and CSU systems, the San Francisco Art Institute, the California College of Arts, and at other colleges of art and schools of design.

Students seeking to complete an associate in arts degree in fine arts may choose to supplement that award with a certificate of achievement in ceramics. The fine art curriculum develops students' critical thinking skills, hones problem-solving skills, and establishes visual literacy in the ceramic medium. The ceramics certificate offers technical training related to the commercial ceramic industry and can lead to career opportunities that include: art educator, exhibiting artist, hand-made production potter, ceramic art studio assistant, art therapy intern, creative tile designer, tile producer, mosaic muralist, portrait sculptor, industrial ceramics product designer, industrial ceramics shop manager, ceramic engineering intern, museum or gallery assistant, art dealer, art critic and other professions in creative, hands-on endeavors.

The certificate of achievement has three components. The first component is a core of two required foundations: one introductory drawing/design class and an art history class. The second component is five classes of ceramics (three required, two elective). The third component is one studio art course outside ceramics.

To earn a certificate, students must complete each course with a "C" grade or higher and maintain an overall GPA of 2.5 or higher in the coursework required for the certificate.

<i>required courses:</i>	<i>units</i>
ART-105 Drawing I.....	3
ART-152 Wheel-Thrown Pottery I.....	3
ART-155 Ceramic Sculpture I.....	3
ART-299 Student Instructional Assistant.....	0.5-3*
ARTHS-199 Contemporary Art History.....	3

*minimum 2 units required

plus at least 9 units from:

ART-153 Wheel-Thrown Pottery II.....	3
ART-154 Hand-Built Ceramics I.....	3
ART-156 Figurative Ceramics I.....	3
ART-252 Wheel-Thrown Pottery III.....	3
ART-253 Wheel-Thrown Pottery IV.....	3
ART-254 Hand-Built Ceramics II.....	3
ART-255 Ceramic Sculpture II.....	3
ART-256 Figurative Ceramics II.....	3
ART-298 Independent Study.....	0.5-3

total minimum required units 23

**Certificate of achievement
Painting and drawing**

Students completing the program will be able to...

- A. create a portfolio demonstrating ideas in a broad range of painting and drawing techniques.
- B. identify the elements that define two-dimensional art.
- C. employ critical thinking to analyze two-dimensional art works in terms of historical context and cultural values.
- D. demonstrate basic drawing skills, color manipulation, and application of design principles.
- E. apply the processes necessary to create drawings in various media and/or paintings in oil, acrylic, and alternative media.

The certificate of achievement in painting and drawing offers a variety of fundamental courses within the field of two-dimensional art. The program will introduce both techniques and concepts of painting and drawing in an academic context. The program requirements are designed for those interested in painting and drawing as a professional practice and may provide preparation for transfer. The requirements for the certificate of achievement in painting and drawing also apply to the associate in arts degree in fine arts. The fine art major in painting and drawing is available at the UC and CSU systems, the San Francisco Art Institute, the California College of the Arts and at other colleges of art and schools of design. Students who wish to transfer must consult with program faculty and college counselors to ensure that the requirements for transfer to appropriate institutions are met.

The fine art curriculum develops a student's critical thinking abilities, hones problem solving skills and establishes visual literacy in the visual arts. Career opportunities that may be enhanced by the certificate of achievement in painting and drawing include: exhibiting artist, muralist, illustrator, graphic designer, art dealer, art critic and other professions in creative endeavors.

To earn the certificate, students must complete each course with "C" grade or higher and maintain an overall GPA of 2.5 or higher in the coursework required for the certificate.

<i>required courses:</i>	<i>units</i>
ART-105 Drawing I.....	3
ART-126 Painting I: Introduction to Painting.....	3
ARTHS-197 History of Baroque to 20th Century Art.....	3

plus at least 6 units from:

ART-103	Visual Theory and Practice - Color Theory	3
ART-106	Drawing and Color	3
ART-107	Figure Drawing I	3
ART-120	Watercolor I	3
ART-135	Art Gallery/Museum Management	3
ARTDM-112	Digital Imaging for the Artist	3
total minimum required units		15

**Certificate of achievement
Printmaking**

Students completing the program will be able to...

- A. create a portfolio demonstrating ideas in a broad range of printmaking techniques.
- B. create and produce edition art prints from various print media.
- C. employ critical thinking to analyze art prints in terms of historical content and cultural values.
- D. demonstrate ability to create prints independently and to present professionally.
- E. create images suitable for printing.
- F. critique their own artwork and the artwork of others.

The certificate of achievement in printmaking includes fundamental courses within the field of printmaking. The program will introduce both techniques and concepts of printmaking in an academic context. The program requirements are designed for those interested in printmaking as professional practice and may provide preparation for transfer. The printmaking major is available at UC and CSU systems, the San Francisco Art Institute, the California College of Arts, and at other colleges of art and schools of design. Students who wish to transfer must consult with program faculty and college counselors to ensure that the requirements for transfer to appropriate institutions are met.

Students whose educational goal is the associate in arts in fine arts may choose to supplement the degree with a certificate of achievement in printmaking. The fine arts curriculum develops a student’s critical thinking skills, hones problem-solving skills, and establishes visual literacy in print media. Career opportunities that may be enhanced by the printmaking certificate include: printmaking exhibiting artist, print dealer, printmaking educator, graphic designer, illustrator, internships and paid apprenticeships in print publishers, and work in print shops including those specializing in etching, woodblock, letterpress, monotype, and silk-screen processes.

To earn the certificate, students must complete each course with “C” grade or higher and maintain an overall GPA of 2.5 or higher in the coursework required for the certificate.

<i>required courses:</i>	<i>units</i>
ART-105 Drawing I.....	3
ARTDM-112 Digital Imaging for the Artist	3

plus at least 9 units from:

ART-109	Printmaking: Monotype.....	3
ART-110	Introduction to Printmaking	3
ART-111	Printmaking: Etching I	3
ART-112	Printmaking: Etching II	3
ART-114	Printmaking: Woodblock.....	3
ART-116	Printmaking: Stencil and Screen Print.....	3
total minimum required units:		15

Limitations on enrollment

Effective fall term 2013, changes to the regulations that govern community college enrollments placed limitations on the number of courses that students may take in certain disciplines within the Contra Costa Community College District. The charts below indicate which Diablo Valley College (DVC) courses are assigned to groups of courses (“families”) for which limitations have been imposed. Certain courses within certain “families” may be repeated (see catalog description), however, students are limited to four enrollments within the family. Certain DVC courses are equivalent to courses at Los Medanos College and Contra Costa College. An enrollment in an equivalent course at one of those colleges will count toward the allowable four enrollments within the family.

Note: Diablo Valley College may offer experimental or topics courses. When appropriate, based on content, such courses will be assigned to a “family” and that enrollment will be counted as an experience within the “family”.

ART

Family: Design

ART-101	Introduction to Two-Dimensional Design
ART-102	Introduction to Three-Dimensional Design and Sculpture
ART-103	Visual Theory and Practice - Color Theory

Family: Drawing

ART-105	Drawing I
ART-106	Drawing and Color
ART-107	Figure Drawing I
ART-108	Figure Drawing II
ART-250F	Advanced Drawing

Family: Printmaking

ART-109	Printmaking: Monotype
ART-110	Introduction to Printmaking
ART-111	Printmaking: Etching I
ART-112	Printmaking: Etching II
ART-114	Printmaking: Woodblock
ART-116	Printmaking: Stencil and Screen Print
ART-150FM	Figurative Monotype and Mixed Media

Family: Painting

- ART-120 Watercolor I
- ART-120A Introduction to Watercolor
- ART-120B Watercolor Workshop
- ART-121 Watercolor II
- ART-126 Painting I: Introduction to Painting
- ART-126A Introduction to Oil/Acrylic Painting A
- ART-126B Introduction to Oil/Acrylic Painting B
- ART-127 Painting II: Intermediate Painting
- ART-128 Painting Concepts and Theme Development
- ART-129 Advanced Painting
- ART-130 Figure Painting
- ART-131 Painting and Abstraction

Family: Sculpture

- ART-138 Sculpture I
- ART-139 Sculpture II
- ART-141 From Clay to Bronze
- ART-142 Metal Art I
- ART-143 Metal Art II
- ART-144 Metal Casting Techniques I
- ART-145 Metal Casting Techniques II
- ART-150CB From Clay to Bronze
- ART-150WK Woodworking for Sculpture

Family: Applied Art Design

- ART-146 Metalsmithing and Jewelry I
- ART-147 Metalsmithing and Jewelry II
- ART-150DC Digital Ceramics Workshop
- ART-150HC Hand-Built Ceramics II
- ART-150JC Introduction to Jewelry Casting
- ART-150LE Metalsmithing and Jewelry III
- ART-150PJ Production Pottery
- ART-150PX Wheel-Thrown Pottery III
- ART-150PY Wheel-Thrown Pottery IV
- ART-152 Wheel-Thrown Pottery I
- ART-153 Wheel-Thrown Pottery II
- ART-154 Hand-Built Ceramics I
- ART-252 Wheel-Thrown Pottery III
- ART-253 Wheel-Thrown Pottery IV
- ART-254 Hand-Built Ceramics II

Family: Ceramic Art

- ART-150CR Ceramic Sculptures II - Surface
- ART-151 Visual Theory and Practice- Ceramic Art
- ART-155 Ceramic Sculpture I
- ART-156 Figurative Ceramics I
- ART-255 Ceramic Sculpture II
- ART-256 Figurative Ceramics II

Family: Photography

- ART-150PA Advanced Alternative Photographic Process
- ART-150PK The Digital Darkroom
- ART-160 Photography I
- ART-161 Photography II
- ART-163 Documentary Photography
- ART-164 Photographic Portfolio Development
- ART-165 Advanced Photographic Portfolio Development

ART-101 Introduction to Two-Dimensional Design

- 3 units SC
- 36 hours lecture/72 hours laboratory per term
- Recommended: Eligibility for ENGL 116/118 or 117 or equivalent

This course presents the theories and applications of two-dimensional design and color in visual art and design. The formal, theoretical, cultural, contemporary, as well as historical elements of two-dimensional design will be explored. C-ID ARTS 100, CSU, UC

ART-102 Introduction to Three-Dimensional Design And Sculpture

- 3 units SC
- 36 hours lecture/72 hours laboratory per term
- Recommended: Eligibility for ENGL-116/118 or 117 or equivalent

This introductory-level studio art course emphasizes the concepts, applications, and historical references related to three-dimensional design in art. Students study and create art projects based on the elements of three-dimensional design: line, plane, volume, mass, texture, surface, treatment, negative and positive space, composition, and scale. Students develop a visual vocabulary for this creative expression through lecture presentations, demonstrations, and use of appropriate materials for three-dimensional studio art projects. Materials may include wire, cardboard, plaster, paper-mache, wood and mixed media. C-ID ARTS 101, CSU, UC

ART-103 Visual Theory and Practice - Color Theory

- 3 units SC
- 36 hours lecture/72 hours laboratory per term
- Recommended: ART 101 or equivalent; eligibility for ENGL 116/118 or 117 or equivalent

This introductory course exposes students to the history of color usage and theory and their application across the globe. The art of diverse cultures including Western/ European Art, Asian/Middle Eastern Art, Meso-American Art and African Art with a focus on visual theory, aesthetics, criticism and historical context will be examined. The historical impact of pigments on art and culture will be explored. The development of critical thinking skills through analysis of cultural and technological constructs that influence the creation of specific genres will be emphasized. Students will produce original art works demonstrating diverse applications of color theory by reinterpreting the cultural traditions they study into a contemporary context with an emphasis on creative problem solving skills. CSU, UC

ART-105 Drawing I

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-101 or equivalent; eligibility for ENGL-116/118 or equivalent

This course introduces observational drawing concepts and form-rendering techniques. Basic visual problem solving skills including perceptual drawing and application of compositional principles will be presented. C-ID ARTS 110, CSU, UC

ART-106 Drawing and Color

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-101, ART-105 or equivalent. Eligibility for ENGL-116/118 or equivalent
- Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.

The course is an exploration of artistic concepts, styles, and creative expression related to drawing and color. Students will learn to apply a variety of black and white and color drawing mediums and methodologies to complex subject matter. Students in this course will build on fundamental drawing skills and the application of color theory to develop personalized approaches to content and materials in exercises covering multiple historical and contemporary approaches to drawing. C-ID ARTS 205, CSU, UC

ART-107 Figure Drawing I

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-105 or equivalent; eligibility for ENGL-116/118 or equivalent

This course introduces drawing the human figure from live models. Basic human anatomy and its application to figure drawing will be discussed. Pencil, charcoal, and ink techniques will be practiced in the creation of figure drawings. C-ID ARTS 200, CSU, UC

ART-108 Figure Drawing II

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Prerequisite: ART-107 or equivalent
- Recommended: Eligibility for ENGL-116/118 or equivalent
- Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.

This course builds on concepts and techniques developed in ART-107. The focus is on drawing the human figure and applying ink wash and color materials such as pastel, gouache, and watercolor. CSU, UC

ART-109 Printmaking: Monotype

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: Eligibility for ENGL-116/118 or equivalent
- Note: Mandatory materials fee required

This course is an exploration of monotype (single image) processes utilizing a painterly approach to printmaking. Emphasis will be on traditional and contemporary methods. CSU, UC

ART-110 Introduction to Printmaking

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-105 or equivalent; eligibility for ENGL-116/118 or equivalent
- Note: Mandatory materials fee required

This course is an introduction to various printmaking techniques including dry point, linoleum cut, monotype, stencil, and collagraph. CSU, UC

ART-111 Printmaking: Etching I

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-110 or equivalent; eligibility for ENGL-116/118 or equivalent
- Note: Mandatory materials fee required

This course is the study of intaglio printmaking including line etching, aquatint, deepbite, multiple color plates, and chine colle. Projects and discussions develop students' understanding of how images can communicate our experience and imagination. Projects may include publishing multiple impressions in book arts form. CSU, UC

ART-112 Printmaking: Etching II

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Prerequisite: ART-111 or equivalent
- Recommended: Eligibility for ENGL-116/118 or equivalent
- Note: Mandatory materials fee required

This course is a continuation of study of the intaglio printmaking including line etching, aquatint, deepbite, multiple color plates, and photo etching. Projects and discussion further develop students' understanding of the traditional print media and application of contemporary methods. Projects may include publishing multiple impressions in book arts form. CSU, UC

ART-114 Printmaking: Woodblock

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-110 or equivalent; eligibility for ENGL-116/118 or equivalent
- Note: Mandatory materials fee required

This course focuses on relief printmaking history and methods. Students will build on basic printmaking techniques such as linocut and woodcut and further explore the possibilities of the media through advanced color woodblock and letter press techniques. Various media will be introduced, including multi-plate relief printing, reduction relief printing, wood engraving, and typeface/polymer plate printing. Various printing methods will be introduced including hand printing, etching press, and letter press. CSU, UC

ART-116 Printmaking: Stencil and Screen Print

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-110 or equivalent; eligibility for ENGL-116/118 or equivalent
- Note: Mandatory materials fee required

The study of stencil methods of printmaking, which are utilized in various fine art media and commercial industries in the contemporary world. Students will learn the principles of stencil through stencil monotype and explore various stencil usages in screen printing, including usage of photo positives and digital imagery. CSU, UC

ART-120 Watercolor I

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-105 or equivalent; eligibility for ENGL-116/118 or equivalent
- Note: ART-120A and 120B combined are equivalent to ART-120

This course is an introduction to the materials and techniques of watercolor painting with emphasis on learning techniques, problem solving, concept development, and skills demonstration. CSU, UC

ART-121 Watercolor II

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Prerequisite: ART-120 or equivalent
- Recommended: Eligibility for ENGL-116/118 or equivalent
- Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.

This course is a continuation of the study of watercolor materials and techniques with emphasis on the development of intermediate level skills and concepts required to produce a portfolio of work. CSU, UC

ART-126 Painting I: Introduction to Painting

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-101, ART-105 and eligibility for ENGL-116/118 or equivalents
- Note: ART-126A and ART-126B combined are equivalent to ART-126

This beginning level course provides students with an introduction to the materials and techniques of oil and acrylic painting. C-ID ARTS 210, CSU, UC

ART-127 Painting II: Intermediate Painting

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Prerequisite: ART-126 or equivalent
- Recommended: ART-103 or equivalent; eligibility for ENGL-116/118 or equivalent
- Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.

This is an intermediate level painting course that provides students with painting projects designed to further develop painting techniques and problem solving abilities. Principles of critiquing art will also be covered. CSU, UC

ART-128 Painting Concepts and Theme Development

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-127 or equivalent; eligibility for ENGL-116/118 or equivalent

This course is designed to help students transition to initiating a series of paintings with a unifying theme. Emphasis will be on the development of the artist's content exploration and imagination. Ideas and themes addressing issues of historic, contemporary, and cultural significance in painting will be presented. CSU, UC

ART-129 Advanced Painting

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-127 or equivalent; eligibility for ENGL-116/118 or equivalent

This course is an advanced-level painting class. Approaches to painting issues concerning subject matter, composition, and expression will be studied. Students will complete a portfolio consisting of a cohesive and thematic series of paintings. CSU, UC

ART-130 Figure Painting

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-107, ART-127 and eligibility for ENGL-116/118 or equivalents

This course is designed to provide students the experience with concepts and media in painting using the human figure as subject matter. The objective of this course is to offer development in the skills and techniques necessary to depict the human figure. CSU, UC

ART-131 Painting and Abstraction

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-127 or equivalent; eligibility for ENGL-116/118 or equivalent

This course is designed to enable advanced students to develop their painting and drawing techniques while focusing on contemporary abstraction and its influence on today's art movements and studio practice. Students will paint using a variety of subjects while focusing on abstraction as the form and style. A survey of historical art movements in abstraction will be presented and their relevance to current painting issues will be discussed. CSU, UC

ART-135 Art Gallery/Museum Management

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: Eligibility for ENGL-116/118 or equivalent

This course is a study of the skills, theories, and practices necessary to prepare works of art for public display. Preparation of artwork, exhibition design, installation, registration, conservation, advertising, and legal issues will be addressed. Students will develop professional skills needed to interact within art and related business environments. Students will apply practical skills in the DVC Art Gallery. CSU

ART-138 Sculpture I

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-102 or equivalent; eligibility for ENGL-116/118 or equivalent

This introductory course focuses on the materials and processes of sculpture. No previous experience in sculpture is required. The course combines an analysis of the history of sculpture (including contemporary object making, installation, art, and self expression) through lectures, demonstrations, and studio projects. A variety of techniques and materials are presented including: wood working, welding, mold-making, modeling, metal casting, plaster, and cement working. CSU, UC

ART-139 Sculpture II

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-102 and ART-138 or equivalents

This studio course is an intermediate level study in both traditional and contemporary approaches to sculpture. Students should have experience and knowledge of basic sculpture techniques. Processes for this course may include, but are not limited to, woodworking, metal casting, rubber mold-making, installation, new technologies, and welding. Contemporary approaches to sculpture are emphasized through thematic project guidelines. Students further develop their personal aesthetics in a body of related work and a portfolio. CSU, UC

ART-141 From Clay to Bronze

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-102 or equivalent; eligibility for ENGL-116/118 or equivalent
- Note: Mandatory materials fee required

This class explores the sculpture process from clay to bronze in a variety of traditional and contemporary techniques. Clay modeling and hand building are utilized as a means to create finished cast bronze works. Traditional skills of lost-wax casting and mold-making are combined with contemporary approaches to sculpture making. No former experience or knowledge of these processes are required to take the course. CSU, UC

ART-144 Metal Casting Techniques I

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-102 or equivalent
- Note: Mandatory materials fee required

This course introduces various aspects of metal sculpture using casting techniques. Moldmaking techniques for castings in bronze, aluminum, and iron are introduced. An in-depth study of traditional and contemporary metal sculpture processes with an emphasis on 3-D design quality are established. CSU

ART-145 Metal Casting Techniques II

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-102 or equivalent and ART-144 or equivalent
- Note: Mandatory materials fee required

This course expands on foundry casting skills with emphasis on more complex casting projects. The casting process for aluminum, bronze, and/or iron will be thoroughly explored. Advanced mold-making techniques in rubber, Resin-Bonded Sand Molds, Green Sand, Standard Investment molds, and Ceramic Shell molds are covered. Emphasis is added to sustainable studio practice, as well as advanced 3-D design. CSU

ART-146 Metalsmithing and Jewelry I

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-102 or equivalent
- Note: Mandatory materials fee required

This is a beginning course providing skills in basic jewelry and metalsmithing design and hands-on processes. The studio coursework includes the techniques of soldering, cutting, stone setting, bezel work, rolling, chain making, metal forming, and metal finishing. The course further provides a foundation in traditional and contemporary jewelry design and aesthetic forms. CSU

ART-147 Metalsmithing and Jewelry II

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART 102 or equivalent and ART 146 or equivalent
- Note: Mandatory materials fee required

This is an advanced metalsmithing/jewelry course with an emphasis on hands-on processes incorporating Individual design, aesthetics, and conceptualization. Further exploration of traditional and contemporary metalsmithing design and aesthetics will be presented. Techniques such as advanced chainmaking, advanced stone setting, forming and raising, chasing, moldmaking, and casting are introduced. CSU

ART-150 Topics in Studio Art

.3-4 units SC

- Variable hours
- Recommended: Eligibility for ENGL-116/118 or equivalent

This is a supplemental course in studio art topics to provide a study of current concepts and problems in studio art. Specific topics will be announced in the schedule of classes. CSU

ART-151 Visual Theory and Practice - Ceramic Art

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: Eligibility for ENGL-116/118 or equivalent
- Note: Mandatory materials fee required

This introductory course will expose students to a broad spectrum of ceramic art from diverse cultures including Western/European Art, Asian/Middle Eastern Art, Meso-American Art and African Art with a focus on visual theory, aesthetics, criticism and historical context. Students will develop critical thinking skills through the analysis of cultural and technological constructs that influence the creation of specific genres. In addition, with an emphasis on creative problem solving skills, students will produce original works of ceramic art by reinterpreting the traditions they study in a contemporary context. CSU, UC

ART-152 Wheel-Thrown Pottery I

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: Eligibility for ENGL-116/118 or equivalent
- Note: Mandatory materials fee required

This course is an introduction to the creation of ceramic vessels using the potter's wheel, as well as the development of critical thinking skills through the examination of ceramic art. Through the study of the art of various cultures, the fundamentals of three-dimensional design, and the development of a vocabulary of aesthetic terms and theories, students will engage in both critical discussion and creative application utilizing the potter's wheel. CSU, UC

ART-153 Wheel-Thrown Pottery II

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-152 or equivalent; eligibility for ENGL-116/118 or equivalent
- Note: Mandatory materials fee required

This intermediate-level, wheel-thrown pottery course focuses on the development of surface treatments. Students will study both form and surface treatments from various western and non-western cultures. Experimentation with a variety of different materials and processes as well as the fundamentals of glaze formulation and mixing will be emphasized. CSU, UC

ART-154 Hand-Built Ceramics I

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: Eligibility for ENGL-116/118 or equivalent
- Note: Mandatory materials fee required

Using functional objects as a starting point, students will learn traditional and contemporary hand-building techniques. This will involve the study of hand-built ceramics from various western and non-western cultures. Students will explore the creative potential of these methods during the construction of original hand-built ceramics. CSU, UC

ART-155 Ceramic Sculpture I

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: Eligibility for ENGL-116/118 or equivalent
- Note: Mandatory materials fee required

This course is an introduction to ceramic sculpture. Its focus is on fundamental techniques and creative strategies to produce ceramic sculpture. This involves the study of sculptural form from various western and non-western cultures and the creation of original works. CSU, UC

ART-156 Figurative Ceramics I

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: Eligibility for ENGL-116/118 or equivalent
- Note: Mandatory materials fee required

This course is an introduction to the fundamental techniques and creative strategies to produce ceramic sculpture based on the human figure. This involves the study of sculptural form from various western and non-western cultures and the creation of original figurative ceramic sculpture based on observations of live models and other sources. CSU, UC

ART-160 Photography I

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Students will need to have a working SLR film camera with manual capability.
Mandatory materials fee required.

This course presents an introduction to black and white film photography offering students a working knowledge of the basics of traditional darkroom photography, including history, theory and practice. Film scanning and digital photography will also be introduced. The technical aspects of photography along with the historical and contemporary role of photography in visual expression, including contributions from diverse cultures will be explored. Class critiques will be used to analyze and discuss photographic images as a form of personal expression and communication. Students will produce a portfolio of photographs. CSU, UC

ART-161 Photography II

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-160 or equivalent; eligibility for ENGL-122 or equivalent
- Note: Students supply a working SLR film camera with manual capability and a light meter (either hand held or built into the camera).
Note: Mandatory materials fee required

This is an intermediate photography class that enhances students' knowledge of materials and techniques used in traditional black and white and digital photography. The course concentrates on the specific controls of image processing and the multiple characteristics of a variety of photographic materials. Beyond technique, emphasis is placed on developing concept, editing, and aesthetic considerations relating to image presentation. CSU, UC

ART-163 Documentary Photography

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-161 or equivalent; eligibility for ENGL-122 or equivalent
- Note: Students supply cameras (film or DSLR), laptop, and external drive.
Note: Mandatory materials fee required.

This is an intermediate level course in which students participate in field trips, in-class lectures, demonstrations, critiques, and studio time to develop their own documentary photo essays. The main emphasis will be on documentary photography, its definition, historical precedents, and image making. This course is appropriate for students in art, journalism, and communication. The students should have a working knowledge of camera operation. CSU

ART-164 Photographic Portfolio Development

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-161 or equivalent; eligibility for ENGL-122 or equivalent
- Note: Students supply a working SLR film or DSLR camera with manual capability.
Note: Mandatory materials fee required
- Formerly ART-162

This course offers students an opportunity to develop advanced skills using the materials and techniques of traditional and digital photography. Portfolio development and photographic practices will be emphasized. Discussion and critique will be informed by the history of photography and an examination of contemporary art practices. CSU

ART-165 Advanced Photographic Portfolio Development

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-161 or equivalent; eligibility for ENGL-122 or equivalent
- Note: Mandatory materials fee required
- Formerly ART-265

This course is designed to refine the aesthetic vision and visual literacy of the experienced photographer by offering a structured environment to cultivate an individual's point of view. Students will identify individual aesthetic concerns, define themes and genres as the basis of their creative project, and relate their construction of a personal vision to contemporary and historical creative photography. CSU

ART-250 Projects in Art

.3-4 units SC

- Variable hours

This is a supplemental course in art that provides a study of current concepts and problems in art. Specific topics will be announced in the schedule of classes. CSU

ART-252 Wheel-Thrown Pottery III

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-152 or equivalent; eligibility for ENGL-116/118 or equivalent
- Note: Mandatory materials fee required

This intermediate-level, wheel-thrown pottery course focuses on the development of wheel-thrown and altered vessel forms. Emphasis is placed on using wheel-thrown forms as a starting point for more complex structures. The study of vessels from various cultures and the creation of complex forms will be discussed. CSU, UC

ART-253 Wheel-Thrown Pottery IV

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-152 or equivalent; eligibility for ENGL-116/118 or equivalent
- Note: Mandatory materials fee required

This intermediate-level, wheel-thrown pottery course focuses on the development of functional pottery forms for the production potter. The study of the art of various cultures, the fundamentals of three-dimensional design, and the development of a vocabulary of aesthetic terms and theories will be addressed. Students will engage in both critical discussion and creative application utilizing the potter's wheel to develop a line of functional pottery forms. CSU, UC

ART-254 Hand-Built Ceramics II

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-154 or equivalent; eligibility for ENGL-116/118 or equivalent
- Note: Mandatory materials fee required

This intermediate-level, hand-built ceramics course focuses on the progressive refinement of hand-built techniques with an emphasis on surface treatment. This involves the study of hand-built forms and surface from various western and non-western cultures and the creation of original hand-built ceramics with an emphasis on developing unique surfaces. CSU, UC

ART-255 Ceramic Sculpture II

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-155 or equivalent; eligibility for ENGL-116/118 or equivalent
- Note: Mandatory materials fee required

This intermediate-level, ceramic sculpture course focuses on the progressive refinement of sculpture form with an emphasis on surface treatment. This involves the study of sculptural form and surface from various western and non-western cultures and the creation of original ceramic sculpture with an emphasis on developing unique surfaces. CSU, UC

ART-256 Figurative Ceramics II

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-156 or equivalent; eligibility for ENGL-116/118 or equivalent
- Note: Mandatory materials fee required

This intermediate-level, figurative ceramics course focuses on the progressive refinement of figurative sculptural form with an emphasis on surface treatment. This involves the study of figurative sculptural form and surface from various western and non-western cultures. The creation of original figurative ceramic sculpture is based on observations of live models and other sources, with an emphasis on developing unique surfaces. CSU, UC

ART-298 Independent Study

.5-3 units SC

- Variable hours
- Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

ART-299 Student Instructional Assistant

.5-3 units SC

- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

ART DIGITAL MEDIA – ARTDM

Toni Fannin, Dean

Applied and Fine Arts Division

Business and Foreign Language Building, Room 204

Possible career opportunities

Digital media or graphic design jobs cover all ends of the creative spectrum. Some possible career options include website designer/developer, multimedia designer, computer-graphic artist, animator and cartoonist, interface designer, instructional designer, production artist, video specialist, audio specialist, multimedia programmer, technical writer, informational designer, multimedia company executive, internet consultant, and computer game designer.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

**Associate in arts degree
Animation and game design**

Students completing the program will be able to...

- A. develop technical proficiency using computer hardware and software appropriate to the animation, game design, or 3D design industry.
- B. visually conceptualize in a clear and concise way the artistic direction for a 3D, animation, or game design project.
- C. create appropriate typographic solutions for a variety of design situations.
- D. articulate, analyze and evaluate the meaning in creative projects, including social contexts and ethical choices.
- E. select appropriate tools, materials and processes for a range of media products.
- F. work collaboratively within a creative team.
- G. develop a professional portfolio of work.

The animation and game design associate in arts degree provides students with a strong foundation in the fundamental aspects of 3D animation and game design. Students will learn the skills to develop 3D animations and game design including techniques such as modeling, animation, texturing, and game engine integration. Courses present material that will take the student through the production process and workflow of 3D animation and game design. Curriculum includes traditional animation techniques, drawing, and the technical fundamentals of 3D animation and game design. The program goal is to provide the skills necessary to enter this growing, professional field.

The types of industries that employ individuals with animation and game design skills include animation for film or television, game design, game development for the web, animation for the web, or assets for game production. Advanced students have the opportunity to create portfolios to prepare for animation and game design careers.

To earn an associate in arts degree with a major in animation and game design, students must complete each course used to meet a major requirement with a "C" grade or higher. Degree requirements can be completed by attending classes in the day, evening, online, or a combination of those. Some courses may satisfy both major and other general education requirements; however, the units are only counted once.

<i>major requirements:</i>		<i>units</i>
ART-106	Drawing and Color	3
ARTDM-140	Motion Graphics.....	3
ARTDM-160	3D Modeling and Animation I	3
ARTDM-161	3D Modeling and Animation II	3
ARTDM-165	Drawing for Digital Animation	3
ARTDM-167	Digital Animation.....	3
ARTDM-180	Game Design I.....	3
ARTDM-181	Game Design II.....	3
ARTDM-214	Introduction to Graphic Design	3

plus at least 3 units from:

ARTDM-105	Introduction to Digital Imaging	3
ARTDM-112	Digital Imaging for the Artist.....	3

plus at least 3 units from:

ARTHS-197	History of Baroque to 20th Century Art.....	3
ARTHS-199	Contemporary Art History	3
FTVE-240	History of Broadcasting and Electronic Media	3

plus at least 3 units from:

ARTDM-149	Fundamentals of Digital Video.....	3
ARTDM-166	Intermediate Drawing for Digital Animation.....	3
ARTDM-170	Animation for Interaction Design	3

total minimum units for the major 36

**Associate in arts degree
Art digital media**

Students completing the program will be able to...

- A. demonstrate an understanding of basic drawing techniques.
- B. produce a digital image from scanned or digital photographs.
- C. utilize digital images for exports to websites, multimedia presentations, and print.
- D. utilize production tools for digital audio for multimedia projects.
- E. demonstrate basic techniques for video capture and editing.
- F. design a multimedia project.
- G. critically evaluate multimedia design techniques and their use in the development of a professional portfolio.
- H. qualify for entry-level employment in the art digital media field.

The art digital media associate in arts program prepares students for entry level employment in the digital media industry. This program of study will provide students with the design and technical skills needed for creating non-linear interactive digital media. Students will participate in a collaborative, team-oriented learning experience that mirrors the industry design and production process. Additionally, students will explore career opportunities and develop a professional portfolio for entry into the workforce.

To earn an associate in arts degree, students must complete each course used to meet a major requirement with a "C" grade or higher. Required courses are available in the evening and during the day. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

<i>major requirements:</i>		<i>units</i>
ART-105	Drawing I	3
ARTDM-105	Introduction to Digital Imaging	3
ARTDM-130	Introduction to Digital Audio.....	3
ARTDM-149	Fundamentals of Digital Video.....	3
ARTDM-190	Digital Media Projects.....	3
ARTDM-191	Digital Media Portfolio Development.....	3

plus at least 9 units from one of the following six specialty areas:*

character animation

ART-107	Figure Drawing I	3
ARTDM-165	Drawing for Digital Animation	3
ARTDM-166	Intermediate Drawing for Digital Animation.....	3
ARTDM-170	Animation for Interaction Design	3

Art digital media

digital audio

MUSX-172	Introduction to Electronic Music and MIDI.....	3
MUSX-173	Advanced Electronic Music	3
MUSX-174	Introduction to Music Technology and Pro Tools	3

digital imaging

ARTDM-112	Digital Imaging for the Artist	3
ARTDM-115	Digital Interface Design.....	3
ARTDM-117	Digital Illustration	3
ARTDM-214	Introduction to Graphic Design	3

motion graphics

ARTDM-140	Motion Graphics.....	3
ARTDM-145	Digital Editing	3
ARTDM-170	Animation for Interaction Design	3

3D modeling and animation

ARTDM-160	3D Modeling and Animation I	3
ARTDM-161	3D Modeling and Animation II	3
ARTDM-165	Drawing for Digital Animation	3
ARTDM-180	Game Design I.....	3

web design

ARTDM-170	Animation for Interaction Design	3
ARTDM-171	Web Design I	3
ARTDM-214	Introduction to Graphic Design	3

plus at least 9 units from:

ART-103	Visual Theory and Practice – Color Theory	3
ART-106	Drawing and Color	3
ART-107	Figure Drawing I	3
ARTDM-100	Introduction to the History and Development of Digital Media	3
ARTDM-101	Introduction to the Production of Digital Media	3
ARTDM-112	Digital Imaging for the Artist	3
ARTDM-130	Introduction to Digital Audio	3
ARTDM-136	Introduction to Digital Photography	3
ARTDM-161	3D Modeling and Animation II	3
ARTDM-165	Drawing for Digital Animation	3
ARTDM-166	Intermediate Drawing for Digital Animation	3
ARTDM-167	Digital Animation	3
ARTDM-170	Animation for Interaction Design	3
ARTDM-180	Game Design I.....	3
ARTDM-224	Typography.....	3
BUS-109	Introduction to Business.....	3
BUSMG-191	Small Business Management	3
COMSC-110	Introduction to Programming.....	3
FTVE-165	Digital Editing	3
FTVE-166	Intermediate Digital Editing.....	3
MUSX-172	Introduction to Electronic Music and MIDI.....	3
MUSX-173	Advanced Electronic Music	3
MUSX-174	Introduction to Music Technology and Pro Tools	3

total minimum units for the major 36

*Note: There may be no duplication of course units between major specialty area requirements and restricted elective courses. Students are limited to one associate in arts degree regardless of the number of specializations completed.

Associate in arts degree

Graphic design

Students completing the program will be able to...

- combine appropriate aesthetic form and content to create evocative and engaging work.
- create appropriate typographic solutions for a variety of design situations.
- demonstrate proficiency with computers, software and production processes.
- select appropriate tools, materials and processes for a range of media products.
- work collaboratively within a creative team.
- critically evaluate and discuss the merits of various creative ideas.
- develop a professional portfolio of work.

This degree program provides students with a strong foundation in the fundamental aspects of graphic design and digital art. Students develop creativity and ideation skills, learn the theories of communication design and apply this to a wide range of design situations. The program is hands-on, integrating conceptual design studies with traditional and digital tools and production methods. The program goal is to provide the skills necessary to enter this growing, professional field.

Some examples where students might find employment using their design and illustration skills might include website design and development, design and illustration of electronic magazines and books, design of interactive marketing presentations, interactive learning products, scientific visualizations, etc. Advanced students have the opportunity to complete professional career preparation courses that deal with specific business issues relevant for designers, illustrators, and digital artists.

DVC graphic design students who intend to transfer must consult with a program advisor to select appropriate courses and are advised to select either General Education Option 2 (IGETC) or Option 3 (CSU GE). General Education Option 1 (DVC General Education) is appropriate for students who do not intend to transfer.

To earn an associate in arts degree with a major in graphic design, students must complete each course used to meet a major requirement with a "C" grade or higher. Degree requirements can be completed by attending classes in the day, evening, online or a combination of those. Some courses may satisfy both major and general education requirements; however, the units are only counted once.

major requirements:		units
ART-105	Drawing I	3
ART-110	Introduction to Printmaking	3
ARTDM-117	Digital Illustration	3
ARTDM-136	Introduction to Digital Photography	3
ARTDM-171	Web Design I.....	3
ARTDM-190	Digital Media Projects.....	3
ARTDM-214	Introduction to Graphic Design	3
ARTDM-224	Typography.....	3
ARTHS-199	Contemporary Art History	3

plus at least 3 units from:

ARTDM-105	Introduction to Digital Imaging	3
ARTDM-112	Digital Imaging for the Artist	3

plus at least 6 units from:

ART-101	Introduction to Two-Dimensional Design	3
ART-102	Introduction to Three-Dimensional Design and Sculpture	3
ART-103	Visual Theory and Practice - Color Theory	3
ART-106	Drawing and Color	3
ART-116	Printmaking: Stencil and Screen Print	3
ART-126	Painting I: Introduction to Painting	3
total minimum units for the major		36

**Certificate of achievement
Animation and game design**

Students completing the program will be able to...

- A. develop technical proficiency using computer hardware and software appropriate to the animation, game design, or 3D design industry.
- B. visually conceptualize in a clear and concise way the artistic direction for a 3D, animation, or game design project.
- C. create appropriate typographic solutions for a variety of design situations.
- D. articulate, analyze and evaluate the meaning in creative projects, including social contexts and ethical choices.
- E. select appropriate tools, materials and processes for a range of media products.
- F. work collaboratively within a creative team.
- G. develop a professional portfolio of work.

The animation and game design certificate of achievement program provides students with a strong foundation in the fundamental aspects of 3D animation and game design. Students will learn the skills to develop 3D animations and game design including techniques such as modeling, animation, texturing, and game engine integration. Courses present material that will take the student through the production process and workflow of 3D animation and game design. Curriculum includes traditional animation techniques, drawing and the technical fundamentals of 3D animation and game design. The program goal is to provide the skills necessary to enter this growing, professional field.

The types of industries that employ individuals with animation and game design skills include animation for film or television, game design, game development for the web, animation for the web, or assets for game production. Advanced students have the opportunity to create portfolios to prepare for animation and game design careers.

To earn a certificate of achievement in animation and game design, students must complete each course used to meet a major requirement with a "C" grade or higher. Certificate requirements can be completed by attending classes in the day, evening, online, or a combination of those.

required courses:

		<i>units</i>
ART-106	Drawing and Color	3
ARTDM-140	Motion Graphics	3
ARTDM-160	3D Modeling and Animation I	3
ARTDM-161	3D Modeling and Animation II	3
ARTDM-165	Drawing for Digital Animation	3
ARTDM-167	Digital Animation	3
ARTDM-180	Game Design I	3
ARTDM-181	Game Design II	3
ARTDM-214	Introduction to Graphic Design	3

plus at least 3 units from:

ARTDM-105	Introduction to Digital Imaging	3
ARTDM-112	Digital Imaging for the Artist	3

plus at least 3 units from:

ARTHS-197	History of Baroque to 20th Century Art	3
ARTHS-199	Contemporary Art History	3
FTVE-240	History of Broadcasting and Electronic Media	3

plus at least 3 units from:

ARTDM-149	Fundamentals of Digital Video	3
ARTDM-166	Intermediate Drawing for Digital Animation	3
ARTDM-170	Animation for Interaction Design	3

total minimum required units 36

**Certificate of achievement
Art digital media -
Character animation**

Students completing the program will be able to...

- A. design a character based on a written description.
- B. present an animation containing the elements of a fully developed cartoon.
- C. produce a storyboard utilizing the principles of sequential art.
- D. develop observational skills in drawing the human figure.
- E. build foundation knowledge in digital media production.
- F. qualify for entry-level employment in the art digital media field.
- G. gain skills in specific digital media applications.

The art digital media program prepares students for entry level employment in the digital media industry with a specialization in character animation. This program of study will provide students with the design and technical skills needed for creating non-linear interactive digital media. Students will participate in a collaborative team-oriented learning experience that mirrors the multimedia industry design and production process. Additionally, students will explore multimedia career opportunities and develop a professional portfolio for entry into the workforce.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Required courses are available in the evening and during the day.

<i>required courses:</i>	<i>units</i>
ART-105 Drawing I	3
ARTDM-105 Introduction to Digital Imaging	3
ARTDM-115 Digital Interface Design.....	3
ARTDM-117 Digital Illustration	3
ARTDM-140 Motion Graphics.....	3
ARTDM-160 3D Modeling and Animation I	3
ARTDM-171 Web Design I	3
ARTDM-190 Digital Media Projects.....	3
ARTDM-191 Digital Media Portfolio Development.....	3
ARTDM-214 Introduction to Graphic Design	3

<i>plus at least 6 units from:</i>	
ART-107 Figure Drawing I	3
ARTDM-165 Drawing for Digital Animation	3
ARTDM-166 Intermediate Drawing for Digital Animation.....	3

total minimum required units 36

**Certificate of achievement
Art digital media -
Digital imaging**

Students completing the program will be able to...

- A. create digital images suitable for printing or multimedia applications.
- B. evaluate digital images for effective design.
- C. create graphic design projects.
- D. build foundation knowledge in digital media production.
- E. qualify for entry-level employment in the art digital media field.
- F. gain skills in specific digital media applications.

The art digital media program prepares students for entry level employment in the digital media industry with a specialization in digital imaging. This program of study will provide students with the design and technical skills needed for creating non-linear interactive digital media. Students will participate in a collaborative team-oriented learning experience that mirrors the multimedia industry design and production process. Additionally, students will explore multimedia career opportunities and develop a professional portfolio for entry into the workforce.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Required courses are available in the evening and during the day.

<i>required courses:</i>	<i>units</i>
ART-105 Drawing I	3
ARTDM-105 Introduction to Digital Imaging	3
ARTDM-112 Digital Imaging for the Artist	3
ARTDM-115 Digital Interface Design.....	3
ARTDM-117 Digital Illustration	3
ARTDM-140 Motion Graphics.....	3
ARTDM-160 3D Modeling and Animation I	3
ARTDM-171 Web Design I	3
ARTDM-190 Digital Media Projects.....	3
ARTDM-191 Digital Media Portfolio Development.....	3
ARTDM-214 Introduction to Graphic Design	3

total minimum required units 33

**Certificate of achievement
Art digital media -
Motion graphics**

Students completing the program will be able to...

- A. create motion graphic projects.
- B. utilize digital production tools for web delivery.
- C. demonstrate competency in various aspects of digitizing, importing, and exporting images.
- D. build foundation knowledge in digital media production.
- E. qualify for entry-level employment in the art digital media field.

The art digital media program prepares students for entry level employment in the digital media industry with a specialization in motion graphics. This program of study will provide students with the design and technical skills needed for creating non-linear interactive digital media. Students will participate in a collaborative team-oriented learning experience that mirrors the multimedia industry design and production process. Additionally, students will explore multimedia career opportunities and develop a professional portfolio for entry into the workforce.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Required courses are available in the evening and during the day.

<i>required courses:</i>	<i>units</i>
ART-105 Drawing I	3
ARTDM-105 Introduction to Digital Imaging	3
ARTDM-115 Digital Interface Design.....	3
ARTDM-117 Digital Illustration	3
ARTDM-140 Motion Graphics.....	3
ARTDM-160 3D Modeling and Animation I	3
ARTDM-170 Animation for Interaction Design	3
ARTDM-171 Web Design I	3
ARTDM-190 Digital Media Projects.....	3
ARTDM-191 Digital Media Portfolio Development.....	3
ARTDM-214 Introduction to Graphic Design	3
FTVE-165 Digital Editing	3

total minimum required units 36

**Certificate of achievement
Art digital media -
Web design**

Students completing the program will be able to...

- A. develop and publish web pages using industry best practices.
- B. create planning and user experience design deliverables for web and mobile projects.
- C. implement rich media, visual design, and interaction design concepts.
- D. build foundation knowledge in digital media production.
- E. qualify for entry-level employment in the art digital media field.
- F. gain skills in a range of creative media tools.

The art digital media program prepares students for entry level employment in the digital media industry with a specialization in web design. This program of study will provide students with the design and technical skills needed for creating interactive digital media. Students will participate in a collaborative team-oriented learning experience that reflects the design industry production processes. Additionally, students will explore web and mobile career opportunities and develop a professional portfolio for entry into the workforce.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Some courses are available in online and traditional formats.

<i>required courses:</i>	<i>units</i>
ART-101 Introduction to Two-Dimensional Design.....	3
ARTDM-105 Introduction to Digital Imaging	3
ARTDM-115 Digital Interface Design.....	3
ARTDM-117 Digital Illustration	3
ARTDM-170 Animation for Interaction Design	3
ARTDM-171 Web Design I.....	3
ARTDM-172 User Experience Design for Web and Mobile Devices.....	3
ARTDM-191 Digital Media Portfolio Development.....	3
ARTDM-214 Introduction to Graphic Design	3
ARTDM-224 Typography.....	3

<i>plus at least 3 units from:</i>	
ARTDM-173 Web Design II.....	3
ARTDM-174 Web and Mobile Design with JavaScript.....	3

total minimum required units 33

Certificate of achievement

Graphic design

Students completing the program will be able to...

- A. combine appropriate aesthetic form and content to create evocative and engaging work.
- B. create appropriate typographic solutions for a variety of design situations.
- C. demonstrate proficiency with computers, software and production processes.
- D. select appropriate tools, materials and processes for a range of media products.
- E. work collaboratively within a creative team.
- F. critically evaluate and discuss the merits of various creative ideas.
- G. develop a professional portfolio of work.

This certificate program provides students with a strong foundation in the fundamental aspects of graphic design and digital art. Students develop creativity and ideation skills, learn the theories of communication design and apply this to a wide range of design situations. The program is hands-on, integrating conceptual design studies with traditional and digital tools and production methods. The program goal is to provide the skills necessary to enter this growing, professional field.

Some examples where students might find employment using their design and illustration skills might include website design and development, design and illustration of electronic magazines and books, design of interactive marketing presentations, interactive learning products, scientific visualizations, etc. Advanced students have the opportunity to complete professional career preparation courses that deal with specific business issues relevant for designers, illustrators, and digital artists.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Required courses are available in the evening and during the day.

<i>required courses:</i>	<i>units</i>
ART-105 Drawing I	3
ART-110 Introduction to Printmaking	3
ARTDM-117 Digital Illustration	3
ARTDM-136 Introduction to Digital Photography	3
ARTDM-171 Web Design I	3
ARTDM-190 Digital Media Projects.....	3
ARTDM-214 Introduction to Graphic Design	3
ARTDM-224 Typography.....	3
ARTHS-199 Contemporary Art History	3

<i>plus at least 3 units from:</i>	
ARTDM-105 Introduction to Digital Imaging	3
ARTDM-112 Digital Imaging for the Artist	3

<i>plus at least 6 units from:</i>	
ART-101 Introduction to Two-Dimensional Design.....	3
ART-102 Introduction to Three-Dimensional Design and Sculpture.....	3
ART-103 Visual Theory and Practice - Color Theory	3
ART-106 Drawing and Color	3
ART-116 Printmaking: Stencil and Screen Print.....	3
ART-126 Painting I: Introduction to Painting	3

total minimum required units 36

Certificate of accomplishment

Art digital media -

Foundation

Students completing any program will be able to...

- A. demonstrate an understanding of basic drawing techniques.
- B. produce a digital image from scanned or digital photographs.
- C. utilize digital images for exports to websites, multimedia presentations, and print.
- D. utilize production tools for digital audio for multimedia projects.
- E. demonstrate basic techniques for video capture and editing.
- F. design a multimedia project.
- G. critically evaluate multimedia design techniques and their use in the development of a professional portfolio.
- H. qualify for entry-level employment in the art digital media field.

Art digital media

Art digital media is a set of technologies and techniques that can be used to enhance the presentation of information. Art digital media uses computers to create productions that bring together text, sounds, animation, graphic art and video to educate, inform and entertain. Classes are designed to serve both working professionals who wish to upgrade their skills and students who wish to enter the field.

To earn a certificate of accomplishment, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Required courses are available in the evening and during the day.

<i>required courses:</i>	<i>units</i>
ARTDM-101 Introduction to the Production of Digital Media	3
ARTDM-105 Introduction to Digital Imaging	3
ARTDM-214 Introduction to Graphic Design	3
total minimum required units	9

ARTDM-100 Introduction to the History and Development of Digital Media

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Recommended: ENGL-116/118 or ENGL-117 or equivalent

This course introduces students to digital media through theory and hands-on activities. The history, aesthetics, technology, and social impacts of digital media will be explored. CSU, UC

ARTDM-101 Introduction to the Production of Digital Media

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Recommended: ENGL-116/118 or ENGL-117 or equivalent

This course introduces key concepts and industry concerns, technologies, and the creation of digital media. Time-based art, network culture, image resolution, computational techniques, and interactivity will be examined. Students will also explore ways of constructing different types of digital media and investigate the history of digital technology. CSU, UC

ARTDM-105 Introduction to Digital Imaging

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Note: This course is equivalent to ARTDM-110 and ARTDM-111 combined. Credit by examination option available.

This course presents design and composition concepts, processes, and aesthetic interpretation of making digital imagery. Students will create computer graphics and edit digital images from scanned photographs and digital photography. CSU, UC

ARTDM-112 Digital Imaging for the Artist

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-105 or equivalent; eligibility for ENGL-116/118 or equivalent

This course is designed to develop a fine arts approach to computer-generated imaging using graphic arts software. An emphasis will be placed on the application and integration of color theory as well as design principles with digital imaging. C-ID ARTS 250, CSU, UC

ARTDM-115 Digital Interface Design

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Recommended: ARTDM-105 or equivalent

This introductory course explores current trends and techniques of interface design and design skills. Emphasis is placed on the development of visual solutions for various interactive communication problems, platforms, and devices. CSU, UC

ARTDM-117 Digital Illustration

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Note: Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course introduces students to digital illustration. Students will engage in the production of vector graphics suitable for printing and the web. Emphasis will be given to fundamentals of design and composition. Instruction will utilize a variety of software programs including Adobe Illustrator. CSU, UC

ARTDM-130 Introduction to Digital Audio

3 units SC

- 36 hours lecture/54 hours laboratory per term

This is an introductory course about the application of audio to various forms of digital media. The course covers how to capture, edit and create digital audio for a variety of digital media formats including DVD's, video and the Internet. The course will involve hands-on work with a variety of digital workstations and multimedia software applications. CSU

ARTDM-136 Introduction to Digital Photography

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ART-160 or equivalent
- Note: Students must have digital camera with manual functions.
- Note: Mandatory materials fee required

This introductory course focuses on the skills required to create effective digital photographs using digital cameras. Students will be introduced to the fundamental principles of image making, composition, color theory, color management, lighting, image processing, and printing with a specific focus on digital photographic practice in fine art. CSU, UC

ARTDM-140 Motion Graphics

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Recommended: ARTDM-105 or equivalent

This introductory course focuses on the creative design skills required to create effective motion graphics. Students will create motion graphics utilizing digital video and various graphic file formats. The theory and production of animated two-dimensional (2D) graphics for time-based media environments will be introduced, focusing on animating typography, graphic objects, and still images. Various software applications will be used including Adobe After Effects. CSU, UC

ARTDM-149 Fundamentals of Digital Video

3 units SC

- 36 hours lecture/54 hours laboratory per term

This introductory course covers the application of video to various forms of digital media including how to capture, edit and create digital video for DVD's and the internet. The course will involve hands-on work with a variety of digital workstations and multimedia software applications. CSU, UC

ARTDM-150 Topics in Digital Media

.5-4 units SC

- Variable hours

A supplemental course in digital media to provide a study of current concepts and problems in digital media. Specific topics will be announced in the schedule of classes. CSU

ARTDM-160 3D Modeling and Animation I

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Recommended: ARTDM-105 or equivalent

This course presents the basic concepts of three-dimensional (3D) modeling and animation. Students explore the production of 3D computer animation including modeling, animation, rigging, and texture mapping. Students will also plan, design and produce 3D animation projects. CSU, UC

ARTDM-161 3D Modeling and Animation II

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Recommended: ARTDM-160 or equivalent

This course builds on skills presented in ARTDM-160 and focuses on the creation of short, 3D animated movies. Students explore the principles that govern animation and practice techniques to implement them in 3D. CSU, UC

ARTDM-165 Drawing for Digital Animation

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Recommended: ART-105 or equivalent
- Note: Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree. Credit by examination option available.

This course introduces students to the skills necessary to create animation that utilizes the 12 principles of animation, character pages, and storyboard animatics. The course is designed to prepare students to develop a particular style of animation using hand drawing techniques and introduces digital applications. In addition, a survey of the history of animation will be presented. CSU

ARTDM-166 Intermediate Drawing for Digital Animation

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Recommended: ART-165 or equivalent
- Note: Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course builds on skills in ARTDM-165 and emphasizes fluidity of movement, multiple visual perspectives, and creating a unified cast of characters for digital animation. Through a series of projects and experiments, students will explore these subjects and discover how to create an animator's "story bible". CSU

ARTDM-167 Digital Animation

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Recommended: ARTDM-160 or equivalent, ARTDM-165 or equivalent
- Note: Students may petition to repeat this course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.
- Formerly ARTDM-175

This course explores how to combine multiple techniques and processes related to animation to create complete viewing experiences. The course follows basic industry production structure to immerse students in the animation process. Students will compare 2D, 3D, and compositing techniques and how to apply them in the creation of animated projects. In addition, students will apply audio recording and post production techniques to animated projects. CSU, UC

ARTDM-170 Animation for Interaction Design

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Recommended: ARTDM 115 or equivalent, ARTDM 171 or equivalent
- Note: Students may petition to repeat this course when software or hardware is changed. Only the first course completed will apply toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course explores animation for the purpose of improving interaction design and user experience design. Concepts and techniques for improving usability and user engagement for the web, mobile, and other interactive contexts will be addressed. CSU, UC

ARTDM-171 Web Design I

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Recommended: ARTDM-105 or equivalent
- Note: Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This introductory course focuses on the essential principles and processes of web design. Students will design and publish effective websites using HTML, cascading style sheets (CSS) and a variety of software tools. CSU

ARTDM-172 User Experience Design for Web and Mobile Devices

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Note: Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course explores user-centered design concepts, practices, and standard deliverables employed in planning interactive experiences. Students will also be exposed to the detailed processes of researching, planning, and designing user experiences for digital contexts. CSU

ARTDM-173 Web Design II

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Prerequisite: ARTDM-171 or equivalent
- Note: Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course presents advanced production concepts such as design and development frameworks, pre-and postprocessors, and content management systems. Students will build upon previous web design experiences to learn professional tools and practices. CSU

ARTDM-174 Web and Mobile Design with JavaScript

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Prerequisite: ARTDM-171 or equivalent

This course presents JavaScript/ECMAScript skills and best practices for web standards. Utilization of code libraries for the development of user interfaces will also be covered. Concepts include interactive design skills with emphasis on scripting the functionality of web interfaces. CSU

ARTDM-180 Game Design I

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Recommended: ARTDM-160 or equivalent

This course will present techniques for the development of interactive game environments. Students will create multiple levels, integrate game mechanics, and apply visual design concepts in the development process. The course follows basic industry production structure to immerse students in the game design process and will introduce node based programming tool sets to be applied to level designs. CSU, UC

ARTDM-181 Game Design II

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Recommended: ARTDM-180 or equivalent

This course will build upon techniques and methods covered in ARTDM-180 Game Design I. Students will create multiple levels, integrate game mechanics, and apply visual design concepts in the development process with an emphasis on continuity and level transitions. The course follows standard industry production structure to immerse students in the game design process. Students will be introduced to intermediate programming and artificial intelligence (AI) behavior systems to be applied to level designs. CSU, UC

ARTDM-190 Digital Media Projects

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Recommended: ART-105, ARTDM-130 and ARTDM-149 or equivalents

This advanced course is designed for students who are preparing for employment in the digital media industry. Working independently and in teams, students will use a variety of software and design tools to create projects for real-world clients. Students will also create presentations combining a variety of digital media. CSU

ARTDM-191 Digital Media Portfolio Development

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Recommended: ART-105, ARTDM-105, ARTDM-115, ARTDM-171, ARTDM-214 or equivalents

This advanced course is designed for students who are preparing for employment in the digital media industry. Students explore career opportunities along with principles of professional portfolio preparation for digital media. Students have the opportunity to view professional portfolios and present their own portfolios to their class peers. CSU

ARTDM-195 Applied Production for Digital Media

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Recommended: ARTDM-190 or equivalent

This course is designed to give students applied production and business experience with a wide variety of client-driven digital media projects. Working independently and in teams, students will build upon the design, tools, and business skills developed in prior coursework. Students will involve themselves in the production process and create projects to meet client specifications. Students will also be intimately involved with the decision making process for running an independent multimedia business. Projects will vary significantly from term to term as well as within the course of a term. CSU

ARTDM-214 Introduction to Graphic Design

3 units SC

- 36 hours lecture/54 hours laboratory per term
 - Recommended: Eligibility for ENGL-122 or equivalent
 - Note: Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.
- Note: Mandatory materials fee required

This course presents the fundamentals of graphic design including history, theory and practice. Students will use graphic design as a means of communicating ideas in a digital environment. Specific focus will be given to principles of design, balance and visual hierarchy, and the integration of text and image. Students will survey the history of graphic design as a basis for exploring and understanding graphic design fundamentals. CSU, UC

ARTDM-224 Typography

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents fundamentals of typography including history, theory, and practice, study of letterforms and type design. Emphasis is placed on the vocabulary of typographic form and its relationship to message and purpose. CSU, UC

ARTDM-295 Occupational Work Experience in ARTDM

1-4 units SC

- May be repeated three times
- Variable Hours
- Note: In order to enroll in ARTDM-295, students must be employed, register for the course, complete an online Employment Form, and participate in an orientation. Employment Form can be accessed at www.dvc.edu/wrkx. Incomplete grades are not awarded for this course.

ARTDM-295 is supervised employment that extends classroom learning to the job site and relates to the student's chosen field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Five hours work per week or seventy-five hours work per term is equal to one unit. Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

ARTDM-296 Internship in Occupational Work Experience Education in ARTDM

1-4 units SC

- May be repeated three times
- Variable hours
- Note: In order to enroll in the ARTDM-296 course, students must be interning or volunteering, register for the course, complete an online Employment Form, and participate in an orientation. The Employment Form can be accessed at www.dvc.edu/wrkx. Incomplete grades are not awarded for this course.

ARTDM-296 is a supervised internship in a skilled or professional level assignment in the student's major field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Internships may be paid, non-paid, or some partial compensation provided. Five hours work per week or seventy-five hours work per term is equal to one unit (paid) or one unit for four hours work per week or sixty hours per term (unpaid work). Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

ARTDM-298 Independent Study

.5-3 units SC

- Variable hours
- Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

ARTDM-299 Student Instructional Assistant

.5-3 units SC

- *Variable hours*
- *Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.*

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

ART HISTORY – ARTHS

Toni Fannin, Dean

Applied and Fine Arts Division

Business and Foreign Language Building, Room 204

Possible career opportunities

Students can pursue careers as curators or archivists at the many museums and galleries across the country. Careers in media, advertising, publishing, fashion or design, as well as art therapy, and working with handicapped or disabled people are also open to art history students. Undergraduate art history majors can pursue advanced training in art history, archaeology, architecture, law, library and information science, business, and education.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in arts in art history for transfer

Students completing any program will be able to...

- identify, describe, and analyze important artworks and issues from respective historical periods using appropriate art historical vocabulary.
- employ critical thinking skills in the study of art.
- describe the intersection of culture, politics, religion, and the arts in specific cultures and time periods.
- apply the elements and principles of design and aesthetics to create works of art.
- relate visual art to cultural traditions in language, literature, music, and philosophy.

The associate in arts in art history for transfer offers students a curricular program for studying a variety of beginning courses within the field of art history. The art history major is a two-year degree program of transferable courses open to all students. The program requirements are designed for those interested in art history as preparation for transfer. The program is broadly constructed both to prepare students for advanced study in the history of art and to provide a basis for many other fields that require the ability to do independent research, evaluate evidence (visual and textual), and create a coherent argument.

The major has required components of Western art history, non-Western art, and fundamentals of drawing and design. The studio practice courses are common components of art history degrees, and are necessary to an understanding of the fundamentals of art making, which informs theory and critique. Students also select related electives. Foreign language preparation is recommended as many baccalaureate degrees and most post-baccalaureate programs require proficiency in at least one foreign language.

Fine arts faculty and staff are dedicated to assisting students in exploring job opportunities, internships, and transferring to four-year institutions of higher learning. Students interested in the major must contact DVC counselors and art faculty about program requirements and transferability to specific institutions. The student with an associate in arts in art history for transfer is prepared for upper division work in the major or related fields (humanities, interdisciplinary studies, visual studies) at four-year institutions. The major is available at UC and CSU systems, the San Francisco Art Institute, the California College of Art, and at other colleges of art and schools of design. Career opportunities include: art or art history teacher, art conservator, museum curator, art journalist, and other related professions. Career opportunities are also available in galleries, museums, and art organizations. Some career fields will require post-baccalaureate preparation. Students also receive a broad-based liberal arts education that is strong in critical thinking skills, which prepares them for a range of professions.

The associate in arts in art history for transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education pattern (CSU GE); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Some courses in the major satisfy both major and CSU GE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

<i>major requirements:</i>		<i>units</i>
ART-105	Drawing I.....	3
ARTHS-193	History of Asian Art.....	3
ARTHS-195	History of Prehistoric and Ancient Art.....	3
ARTHS-196	History of Medieval and Renaissance Art.....	3
ARTHS-197	History of Baroque to 20th Century Art.....	3

<i>plus at least 3 units from:</i>		
ART-101	Introduction to Two-Dimensional Design.....	3
ART-102	Introduction to Three-Dimensional Design and Sculpture.....	3
ART-107	Figure Drawing I.....	3
ART-138	Sculpture I.....	3
ART-152	Wheel-Thrown Pottery I.....	3
ART-160	Photography I.....	3
ARTDM-112	Digital Imaging for the Artist.....	3

<i>plus at least 3 units from:</i>		
ARTHS-199	Contemporary Art History.....	3
ENGL-176	The Graphic Novel as Literature.....	3
FRNCH-121	Second Term French.....	5
FRNCH-220	Third Term French.....	5
FRNCH-221	Fourth Term French.....	5
FRNCH-230	Fifth Term French.....	3
FRNCH-231	Sixth Term French.....	3
GRMAN-121	Second Term German.....	5
GRMAN-220	Third Term German.....	5
GRMAN-221	Fourth Term German.....	5
GRMAN-230	Fifth Term German.....	3
GRMAN-231	Sixth Term German.....	3
HUMAN-110	Humanities: Ancient Civilizations.....	3
HUMAN-111	Humanities: The Middle Ages and Renaissance.....	3
HUMAN-112	Humanities: The Modern World.....	3
HUMAN-115	Humanities: Multicultural America.....	3
HUMAN-116	Humanities: The Arts and Culture of Asia.....	3
ITAL-121	Second Term Italian.....	5
ITAL-220	Third Term Italian.....	5
ITAL-221	Fourth Term Italian.....	5
ITAL-230	Fifth Term Italian.....	3
ITAL-231	Sixth Term Italian.....	3

total minimum units for the major 21

ARTHS-190 Topics in Art History

- .3-4 units SC
- *Variable hours*
- *Recommended: Eligibility for ENGL-116/118 or equivalent*

A supplemental course in art history to provide a study of current concepts and problems in art history. Specific topics will be announced in the schedule of classes. CSU

ARTHS-191 Critical Thinking in Visual Studies

- 3 units SC
- *54 hours lecture per term*
- *Prerequisite: ENGL-122 or equivalent*

This course explores the power of visual culture including analysis of how visual culture creates and mediates meaning. Emphasis is placed on understanding and using principles of inductive and deductive reasoning as well as on evaluation and creation of argument, persuasion, and criticism of visual culture topics from both visual and textual sources. Students will investigate our rich visual world which includes art, advertisements, illustrations, and many other forms of visual communication that inform and mediate every aspect of our lives. CSU, UC

ARTHS-193 History of Asian Art

- 3 units SC
- *54 hours lecture per term*
- *Recommended: Eligibility for ENGL-122 or equivalent*

This course provides an introduction to major art forms and traditions in Asia from prehistory to the present. Artists, patrons, cultures, religions, and their intersections will be covered. Comparisons will be drawn between the course material and other artistic traditions. C-ID ARTH 130, CSU, UC

ARTHS-195 History of Prehistoric and Ancient Art

- 3 units SC
- *54 hours lecture per term*
- *Recommended: Eligibility for ENGL-122 or equivalent*

A history of Western art from the Paleolithic through the end of the Roman period and the beginning of early Christian art. Archeological and anthropological problems are discussed in relation to the study of art styles. The social and cultural background of ancient civilizations and role of the artist will be considered. C-ID: ARTHS-195 + ARTHS-196 = ARTH 110, CSU, UC

ARTHS-196 History of Medieval and Renaissance Art

- 3 units SC
- *54 hours lecture per term*
- *Recommended: Eligibility for ENGL-122 or equivalent*

The course presents the history of Western art from the Early Christian Period through the Renaissance. Stylistic changes are related to significant social and cultural changes. Consideration is given to the changing role of the artist, socially, culturally, and within patronage systems. ARTHS-195 + ARTHS-196 = C-ID ARTH 110, CSU, UC

ARTHS-197 History of Baroque to 20th Century Art

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents a history of Western art from the 17th century through major movements of the 20th century. Stylistic changes are related to significant social and cultural changes. Consideration is given to the changing role of the artist. CSU, UC

ARTHS-199 Contemporary Art History

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents a survey of contemporary art in the United States and Europe from 1945 to the present. Recent global trends in art will also be considered. Emphasis is placed on identifying and understanding important contemporary art movements and images, as well as social and political issues that shape the character of art. CSU, UC

ARTHS-299 Student Instructional Assistant

.5-3 units SC

- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

ASTRONOMY

Joseph Gorga, Dean
Physical Sciences and Engineering Division
Physical Sciences Building, Room 263

Possible career opportunities

Considered a branch of physics, astronomy is really a marriage of the physical sciences from planetary science and atmospheric science to physics and chemistry. Study in astronomy prepares students for careers in scientific research, systems analysis and engineering, as well as software engineering and development. More than two years of college study is usually required.

ASTRO-110 The Visible Universe

3 units LR

- 54 hours lecture per term
- Recommended: MATH-090, or MATH-090E, or MATH-090SP and eligibility for ENGL-122 or equivalent

This course covers fundamental concepts in astronomy and observational techniques including selected mathematical concepts used in developing an understanding of celestial motions and coordinate systems and their importance to humanity. The planetarium sky provides students with the opportunity to observe concepts presented in class. CSU, UC (credit limits may apply to UC - see counselor)

ASTRO-112 The Visible Universe With Laboratory

4 units LR

- 54 hours lecture/54 hours laboratory per term
- Recommended: Math-090 or Math 090E or Math 090SP, Eligibility for ENGL-122, or equivalent

This course covers fundamental concepts in astronomy and observational techniques. Selected mathematical concepts used to understand celestial motions and coordinate systems and their importance to humanity are presented. The planetarium sky provides students with the opportunity to observe concepts presented in class. The laboratory component involves the study of the fundamentals of astronomy and includes investigations of the sun, moon, planets, stars and galaxies. Telescopes and other instruments are used by students to gather data. Students analyze data they have collected as well as that collected by others. CSU

ASTRO-120 Elementary Astronomy

3 units LR

- 54 hours lecture per term
- Recommended: MATH-090 or MATH-090SP or MATH-090E or one year of high school algebra or equivalent and eligibility for ENGL-122 or equivalents

This course presents an introduction to an elementary mathematical approach to the solving of problems relating to solar and stellar systems. Properties and evolution of stars and galaxies as well as their role in the evolution of the universe will be the major emphasis. Instrumentation used for and the analysis of electromagnetic radiation will also be discussed. CSU, UC (credit limits may apply to UC - see counselor)

ASTRO-128 The Universe for Beginners

4 units LR

- 54 hours lecture/54 hours laboratory per term
- Recommended: MATH-090, and eligibility for ENGL-122 or equivalents

This course provides an overview of current theories regarding the universe and the methods astronomers use to arrive at conclusions. Students will observe the sky and physical phenomena and will solve astronomical problems to reinforce knowledge and skills. CSU, UC (credit limits may apply to UC - see counselor)

ASTRO-130 Astronomy Laboratory

1 unit LR

- 54 hours laboratory per term
- Prerequisite: ASTRO-110 or 120 or equivalent (may be taken concurrently)

The laboratory course presents the study of the fundamentals of astronomy and includes investigations of the sun, moon, planets, stars and galaxies. Telescopes and other instruments are used by students to gather data. Students analyze data they have collected as well as that collected by others. CSU, UC

ASTRO-298 Independent Study

.5-3 units SC

- Variable hours
- Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

ASTRO-299 Student Instructional Assistant

.5-3 units SC

- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

Possible career opportunities

Completion of the biology program prepares students for advanced study leading to careers in government, industry, or secondary-school teaching. The program also partially satisfies the entrance requirements for medical and dental schools. Career options include: researcher, educator, laboratory technician, botanist, ecologist, and field technician.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

**Associate in science degree
Allied health**

Students completing any program will be able to...

- illustrate and analyze chemical bonds and reactions.
- demonstrate an understanding of the structure and growth of microbes.
- demonstrate knowledge of the structure and function of the human body.
- demonstrate knowledge of the structure of the human body including both normal and pathological conditions.

The associate in science degree with a major in allied health is a transfer degree for students who wish to transfer to a four-year institution with a major in an allied health field. These fields include, but are not limited to, nursing, radiological sciences, physical therapy, occupational health, and dental hygiene. The degree offers students a broad general education, and provides basic knowledge in microbiology, human anatomy and physiology. These are common prerequisites for above mention four-year majors, while also preparing students for more advanced allied health courses. Degree requirements for four-year programs differ from institution to institution, so students wishing to transfer to a particular four-year program should consult a counselor regarding specific course requirements for that particular program.

The DVC allied health major is intended for transfer. Students wishing to transfer must consult with a counselor regarding other courses in math, chemistry and physics that may be required by the four-year institution to which they intend to transfer. Students who intend to transfer are advised to select General Education Option 2 (IGETC) or Option 3 (CSU GE) Option 1 (DVC General Education) is not generally advised.

To earn an associate in science degree with a major in allied health, students must complete each course used to meet a major requirement with a "C" grade or higher and complete all general education requirements as listed in the catalog. Major requirements may be taken only on a "for grade" basis. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

BIOLOGICAL SCIENCE – BIOSC

Diablo Valley College is approved by the California Board of Registered Nurses for continuing education credits (provider #CEP 7992). Biological Science courses that can be used are BIOSC-119, 120, 139, 140 and 146.

Joseph Gorga, Dean
Biological and Health Sciences Division
Physical Sciences Building, Room 263

Biological science

<i>major requirements:</i>		<i>units</i>
BIOSC-139	Human Anatomy.....	5
BIOSC-140	Human Physiology	5

<i>plus at least 4 units from:</i>		
BIOSC-119	Fundamentals of Microbiology	4
BIOSC-146	Principles of Microbiology	5

<i>plus at least 4 units from:</i>		
CHEM-107	Integrated Inorganic, Organic and Biological Chemistry	5
CHEM-108	Introductory Chemistry	4
CHEM-109	Introduction to Organic and Biochemistry	4
CHEM-120	General College Chemistry I.....	5

total minimum units for the major 18

Associate in science degree Biology

Students completing any program will be able to...

- A. apply the scientific method of inquiry.
- B. illustrate and analyze chemical bonds and reactions.
- C. compare and contrast organismal life structures and functions.
- D. demonstrate an understanding of the mechanisms and evidence for the theory of evolution.

The associate in science degree with a major in biology is designed as a two-year program that offers a broad general education background and an introduction to the basic principles of biology as well as the supporting knowledge of chemistry needed to fully understand and appreciate biology as specified by the learning objectives of the courses. The courses included in the major are also applicable to further study in the life sciences.

The DVC biology major is intended to transfer. Students wishing to transfer must consult with a counselor regarding other courses in math, chemistry and physics that may be required by the four year institution to which they intend to transfer. Students who intend to transfer are advised to select General Education Option 2 (IGETC) or Option 3 (CSU GE). Option 1 (DVC General Education) is not generally advised.

To earn an associate in science degree with a major in biology, students must complete each course used to meet a major requirement with a "C" grade or higher and complete all general education requirements as listed in the catalog. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

<i>major requirements:</i>		<i>units</i>
BIOSC-130	Principles of Cellular and Molecular Biology.....	5
BIOSC-131	Principles of Organismal Biology, Evolution and Ecology.....	5
CHEM-120	General College Chemistry I.....	5
CHEM-121	General College Chemistry II.....	5
total minimum units for the major		20

Associate in science degree Life science

Students completing any program will be able to...

- A. understand and apply the scientific method of inquiry.
- B. explain, illustrate and analyze chemical bonds and reactions.
- C. discuss the mechanisms and evidence for the theory of evolution.
- D. understand the molecular aspects of cell biology/genetics (Cellular Biology emphasis)
- E. discuss interactions of organisms in communities (Field Studies emphasis)
- F. demonstrate knowledge of the structure and function of the human body (Health emphasis).
- G. demonstrate the proper use and care for common laboratory equipment, lab skills, and techniques.

The associate in science degree with a major in life science is designed as a two-year program that offers a broad general education background and an introduction to the basic principles of biology and the supporting knowledge of chemistry needed to fully understand and appreciate biology. Furthermore, courses in three categories of life science are offered from which students select a minimum of twelve units. These categories emphasize I: health science, II: field sciences and III: cellular and molecular biology.

The associate degree in life science is not designed to transfer as major preparation for a baccalaureate degree. DVC life science students who intend to transfer must consult with a program advisor or counselor to ensure that other major preparation courses in math, chemistry, physics and other transfer requirements at the four-year institutions of their choice are met. Students who intend to transfer are advised to select either General Education Option 2 (IGETC) or Option 3 (CSU GE). General Education Option 1 (DVC General Education) is appropriate for students who do not intend to transfer.

To earn an associate in science degree with a major in life science, students must complete each course used to meet a major requirement with a "C" grade or higher and complete all general education requirements as listed in the catalog. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

<i>major requirements:</i>		<i>units</i>
<i>complete at least 4 units from:</i>		
BIOSC-102	Fundamentals of Biological Science with Laboratory	4
BIOSC-117 or both	Human Biology with Laboratory	4
BIOSC-130	Principles of Cellular and Molecular Biology.....	5
and		
BIOSC-131	Principles of Organismal Biology, Evolution and Ecology.....	5
<i>plus at least 4 units from:</i>		
CHEM-107	Integrated Inorganic, Organic, and Biological Chemistry	5
CHEM-109	Introduction to Organic and Biochemistry	4
CHEM-120	General College Chemistry I.....	5

plus at least 12 units from the following areas of specialization; with at least 3 units from each area:

cellular biology

BIOSC-107	Genetics and Evolution	4
BIOSC-119	Fundamentals of Microbiology	4
BIOSC-130	Principles of Cellular and Molecular Biology.....	5
BIOSC-146	Principles of Microbiology	5

field studies

BIOSC-126	Ecology and Field Biology	4
BIOSC-131	Principles of Organismal Biology, Evolution and Ecology.....	5
BIOSC-161	Fundamentals of Marine Biology	3
BIOSC-162	Fundamentals of Marine Biology with Laboratory	4
BIOSC-170	Environmental Science	3
BIOSC-171	Environmental Science with Laboratory.....	4
HORT-148L	California Native Plants Laboratory.....	1
OCEAN-101	Fundamentals of Oceanography	3
OCEAN-102	Fundamentals of Oceanography with Laboratory	4

health

BIOSC-120	Introduction to Human Anatomy and Physiology	5
BIOSC-139	Human Anatomy.....	5
BIOSC-140	Human Physiology	5
NUTRI-160	Nutrition: Science and Applications	3
total minimum units for the major		20

**Associate in science degree
Natural science**

Students completing any program will be able to...

- A. understand and apply scientific terminology appropriate for this specific field of life or physical science.
- B. understand and apply the method of scientific inquiry appropriate for this specific field of life or physical science.
- C. collect and/or analyze laboratory and/or field data appropriate for the specific field of life or physical science.
- D. critically evaluate scientific information in various formats.
- E. understand the relationship between humans and the physical and/or life sciences.

The associate in science degree in natural science is designed as a two-year program that offers a broad general education background and an introduction to the diverse field of the natural sciences. This degree is an appropriate choice for students who seek breadth in their knowledge of the sciences or for those starting their preparation for a career in elementary education (multi subject), secondary education (single subject), journalism, liberal arts, environmental sciences, etc. Students may transfer to a science-related major or career/technical program or may work in a science-related field.

This degree, however, is not designed to present the complete lower division preparation for a major in a traditional scientific field. DVC natural sciences students who intend to transfer must consult with a program advisor or counselor to ensure that other major preparation courses such as mathematics and other transfer requirements at the four-year institutions of their choice are met. Students who intend to transfer are advised to select either General Education Option 2 (IGETC) or Option 3 (CSU GE). General Education Option 1 (DVC General Education) is appropriate for students who do not intend to transfer.

To earn an associate in science degree in natural sciences, students must complete each course used to meet a major requirement with a "C" grade or higher and complete all general education requirements as listed in the catalog. Certain courses may satisfy both major and general education requirements; however the units are only counted once.

Major requirements - Students will select 18 units total from courses in the biological sciences and physical sciences:

biological science

required biological science core: at least 4 units from the following biological science courses with a laboratory:

	<i>units</i>	
BIOSC-102	Fundamentals of Biological Science with Laboratory	4
BIOSC-107	Genetics and Evolution	4
BIOSC-117	Human Biology with Laboratory	4
BIOSC-119	Fundamentals of Microbiology	4
BIOSC-120	Introduction to Human Anatomy and Physiology	5
BIOSC-126	Ecology and Field Biology	4
BIOSC-130	Principles of Cellular and Molecular Biology....	5
BIOSC-131	Principles of Organismal Biology, Evolution and Ecology.....	5
BIOSC-139	Human Anatomy.....	5
BIOSC-146	Principles of Microbiology	5
BIOSC-162	Fundamentals of Marine Biology with Laboratory	4
BIOSC-171	Environmental Science with Laboratory.....	4

physical science

required physical science core: at least 4 units from the following physical science courses with a laboratory:

	<i>units</i>	
ASTRO-110	The Visible Universe.....	3
<i>and</i>		
ASTRO-130	Astronomy Laboratory	1
ASTRO-120	Elementary Astronomy.....	3
<i>and</i>		
ASTRO-130	Astronomy Laboratory	1
ASTRO-128	The Universe for Beginners	4
CHEM-106	Chemistry for Non-Science Majors	4
CHEM-108	Introductory Chemistry	4
CHEM-109	Introduction to Organic and Biochemistry	4
CHEM-120	General College Chemistry I.....	5
GEOG-120	Physical Geography	3
<i>and</i>		
GEOG-121	Physical Geography Laboratory	1

Biological science

GEOG-140	Introduction to Weather	3
and		
GEOG-141	Introduction to Weather Laboratory	1
GEO-120	Physical Geology.....	3
and		
GEO-122	Physical Geology Laboratory.....	1
GEO-121	Earth and Life Through Time	3
and		
GEO-124	Earth and Life Through Time Laboratory	1
GEO-130	Earth Science.....	4
OCEAN-102	Fundamentals of Oceanography with Laboratory.....	4
PHYS-110	Elementary Physics.....	3
and		
PHYS-111	Physics Laboratory	1
PHYS-120	General College Physics I.....	4
PHYS-129	Introductory Physics for Engineers	4
PHYS-130	Physics for Engineers and Scientists A: Mechanics and Wave Motion.....	4
<i>plus 8-10 units from any course not used above or:</i>		<i>units</i>
ASTRO-110	The Visible Universe.....	3
ASTRO-120	Elementary Astronomy.....	3
ASTRO-128	The Universe for Beginners	4
ASTRO-130	Astronomy Laboratory	1
BIO-101	Fundamentals of Biological Science	3
BIO-102	Fundamentals of Biological Science with Laboratory	4
BIO-107	Genetics and Evolution	4
BIO-116	Human Biology.....	3
BIO-117	Human Biology with Laboratory	4
BIO-119	Fundamentals of Microbiology	4
BIO-120	Introduction to Human Anatomy and Physiology	5
BIO-126	Ecology and Field Biology	4
BIO-130	Principles of Cellular and Molecular Biology....	5
BIO-131	Principles of Organismal Biology, Evolution and Ecology.....	5
BIO-139	Human Anatomy.....	5
BIO-140	Human Physiology	5
BIO-146	Principles of Microbiology	5
BIO-161	Fundamentals of Marine Biology	3
BIO-162	Fundamentals of Marine Biology with Laboratory.....	4
BIO-170	Environmental Science	3
BIO-171	Environmental Science with Laboratory.....	4
CHEM-106	Chemistry for Non-Science Majors.....	4
CHEM-107	Integrated Inorganic, Organic, and Biological Chemistry	5
CHEM-108	Introductory Chemistry	4
CHEM-109	Introduction to Organic and Biochemistry	4
CHEM-120	General College Chemistry I.....	5
CHEM-121	General College Chemistry II.....	5
CHEM-226	Organic Chemistry I	5
CHEM-227	Organic Chemistry II	5
GEOG-120	Physical Geography	3
GEOG-121	Physical Geography Laboratory	1
GEOG-125	Introduction to Geographic Information Systems (GIS).....	3
GEOG-126	Advanced Geographic Information Systems ...	3

GEOG-140	Introduction to Weather	3
GEOG-141	Introduction to Weather Laboratory	1
GEOG-160	Introduction to Remote Sensing.....	4
GEOG-162	Map Design and Visualization.....	3
GEO-120	Physical Geology.....	3
GEO-121	Earth and Life Through Time	3
GEO-122	Physical Geology Laboratory.....	1
GEO-124	Earth and Life Through Time Laboratory	1
GEO-125	Geology of California	3
GEO-130	Earth Science	4
HORT-110	Introduction to Horticulture and Plant Science	4
HORT-148L	California Native Plants Laboratory	1
NUTRI-160	Nutrition: Science and Applications	3
OCEAN-101	Fundamentals of Oceanography	3
OCEAN-102	Fundamentals of Oceanography with Laboratory	4
PHYS-110	Elementary Physics.....	3
PHYS-111	Physics Laboratory	1
PHYS-113	Elementary Modern Physics: From Atoms to the Big Bang.....	3
PHYS-120	General College Physics I	4
PHYS-121	General College Physics II	4
PHYS-124	Calculus Supplement for Physics 120	0.5
PHYS-125	Calculus Supplement for Physics 121	0.5
PHYS-129	Introductory Physics for Engineers	4
PHYS-130	Physics for Engineers and Scientists A: Mechanics and Wave Motion.....	4
PHYS-230	Physics for Engineers and Scientists B: Heat and Electro-Magnetism.....	4
PHYS-231	Physics for Engineers and Scientists C: Optics and Modern Physics.....	4
PHYS-112	Fundamentals of Physical Science.....	3
total minimum units for the major		18

Associate in science in biology for transfer

Students completing any program will be able to...

- apply the scientific method of inquiry using appropriate and effective tools in obtaining, analyzing (including use of statistical procedures and standard techniques in data gathering), and interpreting information including peer-reviewed articles.
- illustrate and analyze chemical bonds and reactions starting on the level of subatomic particles to the level of large organic molecules.
- compare and contrast organismal life structures and functions including microorganisms.
- demonstrate an understanding of the mechanisms and evidence for the theory of evolution.
- demonstrate the concept of limits and apply limits to real-world problems.
- solve problems involving rates of change and derivatives, including real-world problems.
- explain the core concepts in mechanics; forces, motion, momentum and energy.
- solve simple circuit problems involving electric potential, capacitance and resistance.

The associate in science in biology for transfer degree is designed as a two-year program that offers an introduction to the basic principles of biology as well as the supporting knowledge of chemistry, physics, and mathematics.

The associate in science in biology for transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education pattern (CSU GE); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Students must complete each course used to meet a major requirement with a "C" grade or higher. Some courses in the major satisfy both major and CSUGE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Students are advised that for this major, they may use the IGETC for STEM (Science, Technology, Engineering and Mathematics) pattern. This pattern allows students to complete one course in Area 3A; one course in Area 3B; and two courses in Area 4 from two different disciplines. Some variations in major requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

<i>required courses:</i>	<i>units</i>
BIOSC-130 Principles of Cellular and Molecular Biology....	5
BIOSC -131 Principles of Organismal Biology, Evolution and Ecology.....	5
CHEM-120 General College Chemistry I.....	5
CHEM-121 General College Chemistry II.....	5

plus at least 4 units from:

MATH-182 Calculus for Management, Life Science and Social Science I.....	4
MATH-192 Analytic Geometry and Calculus I.....	5

plus at least 8 units from:

PHYS-120 General College Physics I.....	4
PHYS-121 General College Physics II.....	4
or	
PHYS-130 Physics for Engineers and Scientists A: Mechanics and Wave Motion.....	4
PHYS-230 Physics for Engineers and Scientists B: Heat and Electro-Magnetism.....	4

plus at least 3 units from:

BIOSC-119 Fundamentals of Microbiology	4
BIOSC-146 Principles of Microbiology	5
CHEM-226 Organic Chemistry I.....	5
MATH-142 Elementary Statistics with Probability.....	4
PSYCH-101 Introduction to Psychology.....	3

total minimum units for the major 35

Certificate of achievement

Allied health

Students completing any program will be able to...

- illustrate and analyze chemical bonds and reactions.
- demonstrate an understanding of the structure and growth of microbes.
- demonstrate knowledge of the structure and function of the human body.
- demonstrate knowledge of the structure of the human body including both normal and pathological conditions.

This program prepares the student for entry into some health professional programs or jobs in the medical field that do not require degrees. These courses provide some of the prerequisites for advanced training in the medical field for such occupations as nursing, dental hygiene, physical therapy, occupational therapy, medical laboratory technician, and radiological sciences.

To earn a certificate of achievement, students must complete the required courses with a "C" grade or higher. Course requirements are typically available in the day and evening. Students may also earn an associate in science degree in allied health.

Students who intend to transfer to a four-year program should consult with a counselor regarding course and program requirements.

<i>required courses:</i>	<i>units</i>
BIOSC-139 Human Anatomy.....	5
BIOSC-140 Human Physiology	5

plus at least 4 units from:

BIOSC-119 Fundamentals of Microbiology	4
BIOSC-146 Principles of Microbiology	5

plus at least 4 units from:

CHEM-107 Intergrated Inorganic, Organic and Biological Chemistry	5
CHEM-108 Introductory Chemistry	4
CHEM-109 Introduction to Organic and Biochemistry	4
CHEM-120 General College Chemistry I.....	5

total minimum required units 18

**Certificate of achievement
Allied health fundamentals**

Students completing any program will be able to...

- A. demonstrate an understanding of the structure and growth of microbes.
- B. demonstrate knowledge of the structure and function of the human body.
- C. demonstrate knowledge of changes in bodily functions as a result of disease and determine the reason for functional changes.
- D. analyze chemical reactions.

This program prepares the student for entry into some health professional programs or jobs in the medical field that do not require degrees. These courses provide some of the prerequisites for advanced training in the medical field for such occupations as nursing, dental hygiene, physical therapy, occupational therapy, medical laboratory technician, and radiological sciences.

To earn a certificate of achievement, students must complete the required courses with a "C" grade or higher. Course requirements are typically available in the day and evening. Students may also earn a certificate of achievement in allied health or an associate in science degree in allied health.

Students who intend to transfer to a four-year program should consult with a counselor regarding course and program requirements.

<i>required course:</i>	<i>units</i>
BIOSC-120 Introduction to Human Anatomy and Physiology	5

<i>plus at least 4 units from:</i>	
BIOSC-119 Fundamentals of Microbiology	4
BIOSC-146 Principles of Microbiology	5

<i>plus at least 4 units from:</i>	
CHEM-107 Intergrated Inorganic, Organic and Biological Chemistry	5
CHEM-108 Introductory Chemistry	4
CHEM-109 Introduction to Organic and Biochemistry	4
CHEM-120 General College Chemistry I	5
total minimum required units	13

BIOSC-101 Fundamentals of Biological Science

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Students who have successfully completed BIOSC-102 should not enroll in BIOSC-101. Students who have successfully completed BIOSC-102 will not receive credit for BIOSC-101.

In this course students will explore fundamental biological principles including the process of evolution by means of natural selection, cell structure and function, plant and animal growth and development, reproduction, genetics and homeostasis within and among living things, populations and communities. CSU, UC (credit limits may apply to UC - see counselor)

BIOSC-102 Fundamentals of Biological Science with Laboratory

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Students who have successfully completed BIOSC-101 should not enroll in BIOSC-102. Students who have successfully completed BIOSC-101 will not receive credit for BIOSC-102.

In this course students will explore fundamental biological principles including the process of evolution by means of natural selection, cell structure and function, plant and animal growth and development, reproduction, genetics and homeostasis within and among living things, populations and communities. A laboratory component is included that introduces scientific method and experimentation, including data gathering and analysis with a variety of scientific equipment. CSU, UC (credit limits may apply to UC - see counselor)

BIOSC-107 Genetics and Evolution

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents the study of various aspects of genetics and evolution. Topics include cellular reproduction, Mendelian Genetics, DNA structure and function, protein synthesis, gene regulation, biotechnology, genetically-modified organisms and gene therapy as well as an introduction to the process of evolution by means of natural selection and the social implications of these topics. The laboratory component includes an introduction to the scientific method and experimentation including data gathering and analysis with a variety of scientific equipment. Laboratory activities will include manipulating DNA, conducting genetic crosses and constructing cladograms. CSU, UC

BIOSC-116 Human Biology

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Students who have successfully completed BIOSC-117 should not enroll in BIOSC-116. Students who have successfully completed BIOSC-117 will not receive credit for BIOSC-116.

The basic principles of biology will be covered, especially as they pertain to humans. Topics include cell structure, function and reproduction, human heredity, structure and function of a variety of human organ systems, ecology and evolution. CSU, UC (credit limits may apply to UC - see counselor)

BIOSC-117 Human Biology with Laboratory

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Students who have successfully completed BIOSC-116 should not enroll in BIOSC-117. Students who have successfully completed BIOSC-116 will not receive credit for BIOSC-117.

The basic principles of biology will be covered, especially as they pertain to humans. Topics include cell structure, function and reproduction, human heredity, structure and function of a variety of human organ systems, ecology and evolution. A laboratory component is included that introduces the scientific method and experimentation, including data gathering and analysis with a variety of scientific equipment. CSU, UC (credit limits may apply to UC - see counselor)

BIOSC-119 Fundamentals of Microbiology

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Prerequisite: CHEM 107 or CHEM-108 or CHEM-109 or CHEM-120 or equivalent
- Recommended: High school or college biology or chemistry; eligibility for ENGL-122; and MATH-120 or equivalents
- Note: Students who have successfully completed BIOSC-146 should not enroll in BIOSC-119. Students who have successfully completed BIOSC-146 will not receive credit for BIOSC-119.

This course covers the fundamentals of microbiology with an emphasis on microbiology as it pertains to the allied health professions. Topics include: microscopy and staining, cell structure and function, biological molecules and metabolism, culture and control of microbes (with an emphasis on sterile technique), microbial genetics and biotechnology, classification, immunology, medical microbiology and microbes in the environment. CSU, UC (credit limits may apply to UC-see counselor)

BIOSC-120 Introduction to Human Anatomy and Physiology

5 units SC

- 54 hours lecture/108 hours laboratory per term
- Recommended: High school or college biology or chemistry and eligibility for ENGL-122 or equivalents

The course covers the structure and function of the human body, stressing the levels of organization within the body, the relationship between structure and function, the importance of maintaining relatively stable internal conditions for health, and some health consequences resulting from loss of this stability. Hands-on laboratory work including microscopy, experiments, and dissection (including cadavers) supports the lecture material. CSU, UC (credit limits may apply to UC - see counselor)

BIOSC-126 Ecology and Field Biology

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is designed for non-majors and presents the principles of ecology, natural selection, speciation and biodiversity. During field laboratories, students will survey the natural history of ecological communities in northern California to identify dominant plant and animal species in each community and explore the influences of the physical environment on the evolutionary adaptations and ecology of the species. Human impacts on ecological systems and conservation issues are explored. CSU, UC

BIOSC-130 Principles of Cellular and Molecular Biology

5 units SC

- 54 hours lecture/108 hours laboratory per term
- Prerequisite: CHEM-120 or equivalent
- Recommended: BIOSC-101 or BIOSC-102 and eligibility for ENGL-122 or equivalents

This course is formed around the universal biological processes of all organismal life with an emphasis on the cellular level of organization and is intended for biology majors or other students with an in-depth interest in the biological sciences. Topics include principles of biomolecules, prokaryotic and eukaryotic cellular morphology and ultrastructure, biochemical pathways (photosynthesis and cellular respiration), enzymes, cellular communication and reproduction, classical and molecular genetics, gene control, embryology, immunology, and selected topics of animal physiology emphasizing homeostatic control mechanisms. The laboratory component focuses on methodologies necessary for analyzing molecular, cellular and genetic problems like microscopy, spectrophotometry, graphing and statistical analysis, as well as recombinant DNA technologies. C-ID BIOL 190, BIOSC 130 + BIOSC 131= BIOL 135S, CSU, UC

BIOSC-131 Principles of Organismal Biology, Evolution and Ecology

5 units SC

- 54 hours lecture/108 hours laboratory per term
- Prerequisite: CHEM-120 (may be taken concurrently) or equivalent
- Recommended: BIOSC-101 or 102, BIOSC-130 and eligibility for ENGL-122 or equivalents

This course is formed around three main biological principles: evolution, unity/diversity of life, and ecology and is intended for biology majors or other students with an in-depth interest in the biological sciences. The focus is on universal biological processes with emphasis on the whole organism and higher levels of organization. Evidence and mechanisms of evolution and speciation; evolutionary history and diversity of life; structure, function and evolutionary adaptations of organisms (including plants, fungi, animals, and unicellular organisms); general, population and community ecology; ecosystems and environmental concerns are covered. In laboratory, students will explore these themes with hands-on observations, dissections, laboratory activities and field exercises. BIOSC-130+BIOSC-131=C-ID BIOL 135S, CSU, UC

BIOSC-139 Human Anatomy

5 units SC

- 54 hours lecture/108 hours laboratory per term
- Recommended: BIOSC-102 and eligibility for ENGL-122 or equivalents
- Note: The course content is appropriate for majors in Physical and Health Education; Public Health; Nursing; Physical, Occupational and Respiratory Therapy; Paramedical; Nurse Practitioner, and Physician Assistant programs.

This course examines the physical structure of the human body as an integrated unit, stressing normal structure and the changes that occur with aging and disease. Gross anatomy will be studied primarily through cadaver dissection in conjunction with preserved specimens, student self-reference, models and charts. Microscopic anatomy (histology) will be studied mainly through the use of microscope slides. C-ID BIOL 110B, CSU, UC (credit limits may apply to UC - see counselor)

BIOSC-140 Human Physiology

5 units SC

- 54 hours lecture/108 hours laboratory per term
- Prerequisite: BIOSC-120 or BIOSC-139 or Equivalent. CHEM-107, 108, 109 or 120 or one year of high school chemistry or equivalents
- Recommended: BIOSC-102, eligibility for ENGL-122, and MATH-120 or equivalents
- Note: This course is primarily intended for Nursing, Allied Health, Dental Hygiene, Kinesiology, and other health related majors.

This course presents the essential concepts of physiological mechanisms of the human body. Emphasis will be given to regulatory mechanisms ranging from the cellular level to organ-system level employing chemical, mathematical and physical principles. Topics of study will include physiological principles, function, integration and homeostasis of the human body at the cellular, tissue, organ, organ system and organismal level. Laboratory activities focus on methodologies necessary for the application, analysis and evaluation of major physiological principles using molecular technologies, bioelectronics, computer analysis, and/or live organisms. C-ID BIOL 120B, CSU, UC (credit limits may apply to UC - see counselor)

BIOSC-146 Principles of Microbiology

5 units SC

- 54 hours lecture/108 hours laboratory per term
- Prerequisite: CHEM-107 or CHEM 108 or CHEM 109 or CHEM 120 or equivalents
- Recommended: Eligibility for ENGL 122 and MATH 120 or High school or College biology or equivalents

This course covers the principles of microbiology with a molecular emphasis. Topics include microscopy and staining, cell structure and function, cell biochemistry and metabolism, culture and control of microbes (with an emphasis on sterile technique), microbial genetics, biotechnology concepts and applications, classification and identification of microbes, immunology, medical microbiology and microbes in the environment. CSU, UC (credit limits may apply to UC-see counselor)

BIOSC-150 Topics in Biology

.3-4 units SC

- Variable hours

A supplemental course in biology to provide a study of current concepts and problems in biology and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

BIOSC-161 Fundamentals of Marine Biology

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: This course does not include a laboratory. Students requiring or wanting a laboratory to accompany this course should enroll in BIOSC-162. Students who have successfully completed BIOSC-162 should not enroll in BIOSC-161. Students who have successfully completed BIOSC-162 will not receive credit for BIOSC-161.

This course is an introduction to the diversity of marine organisms, the environments in which they live, and the relationships between species and organisms with their environments. Topics will include: the scientific method and its utilization in the marine sciences; properties of the marine environment; marine organisms (including their diversity and evolutionary adaptations; marine ecosystems with a focus on local estuarine and coastal environs; marine ecology;) and the sustainable use of marine biological resources. CSU, UC (credit limits may apply to UC - see counselor)

BIOSC-162 Fundamentals of Marine Biology with Laboratory

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Students who have successfully completed BIOSC-161 should not enroll in BIOSC-162. Students who have successfully completed BIOSC-161 will not receive credit for BIOSC-162. This course will include field trips outside of regularly scheduled class time. Formerly BIOSC-160.

This course is an introduction to marine organisms, marine environments, and the ecological relationships that exist between them. Lecture topics will include: the scientific method and its utilization in the marine sciences; physical, chemical and geological properties of the marine environment; marine organisms (including their taxonomic classification, diversity and evolutionary adaptations); marine ecosystems; marine ecology. Laboratory topics will include: observation and dissection of representative marine organisms; and inquiry based comparison of organisms in different phyla and from different habitats. CSU, UC (credit limits may apply to UC - see counselor)

BIOSC-170 Environmental Science

3 units SC

- 54 hours lecture per term
- Recommended: BIOSC-101 or 102; eligibility for ENGL-122 or equivalents
- Note: Students who have successfully completed BIOSC-171 should not enroll in BIOSC-170. Students who have successfully completed BIOSC-171 will not receive credit for BIOSC-170.

This is an introductory course designed to expose students to environmental science. Human interactions with the environment and their consequences for living and nonliving systems will be examined. Topics will include evolution, ecology, biodiversity, human population dynamics, natural resource use, pollution, environmental degradation, climate change, marine and freshwater resources, and environmental policy. CSU, UC (credit limits may apply to UC - see counselor)

BIOSC-171 Environmental Science with Laboratory

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Recommended: BIOSC-101 or BIOSC-102 or equivalent; eligibility for ENGL-122 or equivalent
- Note: Students who have successfully completed BIOSC-170 should not enroll in BIOSC-171. Students who have successfully completed BIOSC-170 will not receive credit for BIOSC-171. Class field trips will be organized to local sites related to course topics.

This is an introductory course designed to expose students to environmental science. Human interactions with the environment and their consequences for living and nonliving systems will be examined. Topics will include evolution, ecology, biodiversity, human population dynamics, natural resource use, pollution, environmental degradation, climate change, marine and freshwater resources, and environmental policy. The laboratory component will introduce the scientific method, including experimental design, sampling methods, data collection and analysis techniques, as well as representing those data in graphical form. CSU, UC (credit limits may apply to UC - see counselor)

BIOSC-299 Student Instructional Assistant

.5-3 units SC

- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

BUSINESS – BUS

Despina Prapavessi, Dean

Business Division

Math Building, Room 267

Possible career opportunities - Business

Studies in business prepare students to participate and support the operations of organizations. Careers include supervising and coordinating activities, such as purchasing, budgeting, and recordkeeping. Functional area of management or administration, such as human resources, purchasing, or administrative services are likely focal points of a business professional.

Possible career opportunities - Business management and leadership

Careers in business management/leadership assist administrative functions through team work to conduct organizational studies, design systems and procedures, conduct measurement analyses, and prepare operations and procedures reports. Some careers also involve assessing staff requirements, in hiring, training new employees, or participating in human resources processes.

Possible career opportunities - Business marketing

Study in business marketing prepares students for careers in several areas, including brand and product management, professional selling, public relations, advertising and promotions, marketing research, marketing logistics, and nonprofit services. Regardless of whether students plan to become a marketing professional or do something else in business, a basic understanding of marketing is important in preparation for any career.

Possible career opportunities - Office professional

The office professional curriculum enriches the chosen career of all who work in professional office settings, especially those who are employed as an administrative assistant, administrative technician, administrative associate, office manager, office clerk, receptionist, secretary, customer service representative, office coordinator, or typist.

Possible career opportunities - Real estate

Professionals in real estate arrange, support, or coordinate the selling, buying, leasing of commercial, industrial, or residential property. Careers may include working with homeowner associations, rented or leased housing units, buildings, or land (including rights-of-way). Employees work in real estate offices, or for commercial real estate firms to arrange loans for the purchase of property.

Possible career opportunities - Small business management/ Entrepreneurship

Small business managers/entrepreneurs have diverse career duties including, finding financial resources, collecting sales tax, creating computer networks, setting up filing systems, and creating marketing plans. Further, those that select careers in this discipline, identify trends and potential markets for products, direct salespersons, provide guidance and training for new employees, and mitigate compliant and compliance issues.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in science degree

Business

Students completing the program will be able to...

- A. demonstrate knowledge of business operations, the business organization, and business procedures.
- B. analyze and evaluate business situations in the major concentration area (i.e. real estate, wealth management, business marketing, advanced general business, management and leadership studies, and small business management/entrepreneurship), identify business problems, and develop solutions/plans of action.
- C. apply ethical standards and best practices of social responsibility to business situations.
- D. develop communication that presents business information in an organized and clear form.
- E. implement technologies to identify business problems and to develop solutions and action plans.

This curriculum is designed to provide an opportunity for business students to achieve an associate in science degree after completing a series of foundational and more advanced courses in the area of business. Completion of this curriculum will demonstrate commitment to the field and provide comprehensive preparation for employment in business related occupations. This degree is not primarily intended for transfer students and does not include all courses required for transfer. Students who intend to transfer should consider the associate in science degree in business administration for transfer. DVC business students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to four-year institutions of their choice are met. Students who intend to transfer are also advised to select either General Education Option 2 (IGETC) or Option 3 (CSU GE). General Education Option 1 (DVC General Education) is appropriate for students who do not intend to transfer.

To earn this associate degree with a major in business, students must satisfactorily complete sixty (60) units of degree applicable coursework with a grade point average of 2.0 (C) or higher. At least 12 units of degree applicable coursework must be earned at DVC. Certain courses may satisfy both major and general education requirements; however, the units are only counted once. Because currency of information is relevant for this employment related degree, all coursework required for the degree major must be completed within ten years of the degree date.

<i>major requirements:</i>		<i>units</i>
BUS-109	Introduction to Business	3
BUS-250	Business Communications	3
BUS-294	Business Law	3
BUSMG-120	Introduction to Management Studies	3

<i>plus at least 3 units from:</i>	
BUSAC-181	Applied Accounting..... 3
BUSAC-186	Financial Accounting..... 4

<i>plus at least 9 units from:</i>		
BUS-145	Business Spreadsheet Applications..... 2	
BUS-161	Personal Financial Management	3
BUS-209	International Business.....	3
BUS-210	Introduction to e-Business	3
BUS-240	Business Statistics.....	3
BUS-261	Investments	3
BUSAC-185	QuickBooks Accounting for Business I	1.5
BUSAC-187	Managerial Accounting	4
BUSAC-188	QuickBooks Accounting for Business II	1.5
BUSAC-285	Federal Income Taxes – Individuals.....	3
BUSMG-121	Practices and Concepts of Supervision	3
BUSMG-131	Managing Diversity in the Workplace	3
BUSMG-132	Human Resource Management	3
BUSMG-191	Small Business Management	3
BUSMG-192	Entrepreneurship and Venture Management ...	3
BUSMG-226	Group Behavior and Leadership.....	3
BUSMK-158	Professional Selling.....	3
BUSMK-255	Advertising	3
BUSMK-256	Marketing.....	3
BUSMK-258	Advertising and Gender	3
RE-160	Real Estate Principles	3
RE-161	Legal Aspects of Real Estate	3
RE-162	Real Estate Appraisal I	3
RE-163	Real Estate Practice	3
RE-164	Real Estate Finance	3
RE-165	Real Estate Economics	3
RE-166	Escrow Procedures.....	3
RE-167	Real Estate Property Management.....	3

total minimum units for the major 24

Associate in science in business administration for transfer

Students completing the program will be able to...

- communicate in a professional, concise, clear, and correct manner.
- explain the functions of business financial operations and apply them to business case problems.
- compare and contrast ethical approaches and social responsibility options in business situations.
- evaluate an existing business and identify the business organization, key business procedures relevant to a specific problem using appropriate technology.

This curriculum is designed to provide an opportunity for the business major to achieve an associate in science degree in business administration while completing the requirements for transfer to a California State University (CSU) or other four-year college or university to earn a bachelor's degree in business administration. A baccalaureate degree is recommended preparation for those considering professional careers in business. Completion of this curriculum will demonstrate commitment to the field and provide comprehensive preparation for upper-division work.

The associate in science in business for transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education pattern (CSU GE); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Some courses in the major satisfy both major and CSUGE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

<i>major requirements:</i>		<i>units</i>
BUS-294	Business Law	3
BUSAC-186	Financial Accounting.....	4
BUSAC-187*	Managerial Accounting.....	4
ECON-220*	Principles of Macroeconomics	3
ECON-221*	Principles of Microeconomics	3

*plus at least 3 units from**:*

BUS-240*	Business Statistics.....	3
MATH-142*	Elementary Statistics with Probability.....	4
MATH-181*	Finite Mathematics.....	3
MATH-182*	Calculus for Management, Life Science and Social Science I.....	4
MATH-192*	Analytic Geometry and Calculus I.....	5

plus at least 5 units from any course not used above or:

BUS-109	Introduction to Business.....	3
BUS-145	Business Spreadsheet Applications.....	2
COMSC-101	Computer Literacy	4

total minimum units for the major 25

**These courses have specific prerequisites. See course description for details.*

***Students are advised that most universities require both a mathematics and a statistics course. Consult with a counselor.*

Certificate of achievement Advanced general business

Students completing the program will be able to...

- determine how a business decision maximizes the benefit and minimizes the risk for all entities involved.
- explain the importance of the global environment and the role it plays in the overall success of business organizations.
- explain group dynamics in developing and managing a team and work effectively in teams.
- analyze and evaluate business situations in the major concentration area (i.e. real estate, wealth management, business marketing, advanced general business, management and leadership studies, and small business management/entrepreneurship), identify business problems, and develop solutions/plans of action.
- Apply ethical standards and best practices of social responsibility to business situation.

This curriculum is designed to expand general business knowledge and add depth and breadth in the areas of management and supervision, global business, and statistical arguments and solutions. The program provides development of general principles and skills applicable to all businesses and industries.

To earn the certificate of achievement in advanced general business, students must complete each course with a "C" grade or higher. All coursework required for the certificate must be completed within seven years of the certificate date.

Business

<i>required courses:</i>	<i>units</i>
BUS-109 Introduction to Business	3
BUS-250 Business Communications	3
BUS-294 Business Law	3
BUSMG-120 Introduction to Management Studies	3

plus at least 12 units from:

Any BUS course not listed in the core requirements	3
Any BUSAC course not listed in the core requirements	3
Any BUSMG course not listed in the core requirements	3
Any BUSMK course not listed in the core requirements	3
Any RE course not listed in the core requirements	3
total minimum required units	24

Certificate of achievement Business - transfer

Students completing the program will be able to...

- Communicate in a professional, concise, clear, and correct manner.
- explain the functions of business financial operations and apply them to business case problems.
- compare and contrast ethical approaches and social responsibility options in business situations.
- evaluate an existing business and identify the business organization, key business procedures relevant to a specific problem using appropriate technology.

This curriculum prepares the student for entry into business related professional programs or jobs that do not require degrees. Certificate requirements provide a strong general business foundation for employment in business administration, accounting, management, marketing, finance, international business, or other business-related area. Additionally, it completes most, if not all, of the undergraduate business major requirements for transfer should a student decide to transfer prior to completing all the requirements for the DVC associate in arts degree in business-transfer; or decide to complete the lower division general education requirements and transfer to a four-year institution at a later time. This certificate provides a core curriculum for employment in business or for the further study of business.

To earn a certificate of achievement in business-transfer students must complete each course used to meet a certificate requirement with a "C" grade or higher. All coursework required for the certificate must be completed within seven years of the certificate date.

<i>required courses:</i>	<i>units</i>
BUSAC-186 Financial Accounting	4
BUSAC-187* Managerial Accounting	4
ECON-220* Principles of Macroeconomics	3
ECON-221* Principles of Microeconomics	3

plus at least 3 units from:

MATH-182* Calculus for Management, Life Science and Social Science I	4
MATH-192* Analytic Geometry and Calculus I	5

plus at least 3 units from:

BUS-240* Business Statistics	3
MATH 142* Elementary Statistics with Probability	4

plus at least 3 units from:

BUS-109 Introduction to Business	3
BUS-294 Business Law	3
total minimum required units	23

**The above courses have specific prerequisites. See course description for details.*

Certificate of achievement Business marketing

Students completing the program will be able to...

- demonstrate knowledge of business operations, the business organization, and business procedures.
- determine the demand for products and services offered by a firm and its competitors and identify potential customers.
- develop pricing strategies with the goal of maximizing the firm's profits or share of the market while ensuring the firm's customers are satisfied.
- participate in product development or monitor trends that indicate the need for new products and services.
- identify and implement cost-effective distribution channels and promotional mixes.

This curriculum is designed to develop many aspects of strategic marketing, advertising, professional selling, retail merchandising, and emerging trends in social and interactive media. Market analysis is incorporated into the program to tap into customer data and consumer insights to develop ways to better connect with target audiences and formulate winning business strategies.

Students of the business marketing program can acquire a solid foundation in principles of marketing, business statistics, selling and sales management, integrated marketing communications, advertising principles, international business, consumer behavior, marketing research, internet marketing, and ethics in marketing. Students become proficient in the marketing planning process, from goal setting to situation analysis and marketing strategy development to marketing implementation and control. Building marketing competencies prepares students for a job in a large organization, small business, or startup.

To earn the certificate of achievement in business marketing, students must complete each course with a "C" grade or higher. All coursework required for the certificate must be completed within five years of the certificate date.

<i>required courses:</i>	<i>units</i>
BUS-109 Introduction to Business	3
BUS-240 Statistics	3
BUS-250 Business Communications	3
BUSMG-120 Introduction to Management Studies	3
BUSMK-256 Marketing	3

plus at least 3 units from:

BUSMG-191 Small Business Management	3
BUSMG-192 Entrepreneurship and Venture Management ...	3

plus at least 6 units from:

BUS-209	International Business.....	3
BUSMK-158	Professional Selling.....	3
BUSMK-255	Advertising	3
BUSMK-258	Advertising and Gender	3
total minimum required units		24

Certificate of achievement

Digital marketing

Students completing the program will be able to...

- A. demonstrate knowledge of common digital marketing tactics, tools, and strategies used by business-to-consumer (B2C) and business-to-business (B2B) companies.
- B. design an e-commerce program to build strong customer relationships and drive sales.
- C. devise a content marketing strategy that creates a closer bond between the customer and the brand.
- D. develop an effective search marketing strategy to drive organic traffic and paid searches.
- E. create an integrated digital marketing campaign designed to achieve organizational goals and objectives.
- F. measure the effectiveness of a digital marketing campaign using web analytics software.

The curriculum is designed to familiarize students with the essential digital marketing tools and techniques required to identify, cultivate, and manage customer relationships in today's fast-paced digital environment. This career pathway program takes a detailed look at digital marketing, social media, web analytics, content strategy, video marketing, search engine optimization, email marketing, and e-business, among other course topics.

The program provides a solid foundation in all phases of digital marketing to prepare for work as social media managers, advertising and promotions managers, public relations specialists, marketing and media communications professionals, search marketing strategists, sales representatives, advertising sales agents, and marketing research analysts and marketing specialists. Some career options may require more than two years of college study. Students are advised to consult a counselor.

To earn the certificate of achievement in digital marketing, students must complete each course with a "C" grade or higher. All coursework required for the certificate must be completed within seven years of the certificate date.

<i>required courses:</i>		<i>units</i>
BUSMK-259	Digital Marketing Fundamentals	3
BUSMK-260	Social Media Marketing	3
BUSMK-261	Digital Marketing Analytics.....	3
BUSMK-262	Content Marketing.....	3

plus at least 6 units from:

ARTDM-149	Fundamentals of Digital Video.....	3
BUS-210	Introduction to e-Business	3
BUSMK-263	Email Marketing	2
BUSMK-264	Search Marketing	2
CIS-133	Developing Video Content for the Web.....	2
total minimum required units		18

Certificate of achievement

General business

Students completing the program will be able to...

- A. determine how a business decision maximizes the benefit and minimizes the risk for all entities involved.
- B. explain the importance of the global environment and the role it plays in the overall success of business organizations.
- C. explain group dynamics in developing and managing a team and work effectively in teams.

This curriculum is designed to provide core business knowledge for obtaining entry-level employment in jobs requiring some general business skills. Course content emphasizes a survey of various business disciplines including marketing, finance and investments, small business/entrepreneurship and real estate. Additionally, the curriculum develops skills in business communications, provides a background in general business law, and introduces management studies.

To earn the certificate of achievement in general business, students must complete each course with a "C" grade or higher. All coursework required for the certificate must be completed within seven years of the certificate date.

<i>required courses:</i>		<i>units</i>
BUS-109	Introduction to Business.....	3
BUS-250	Business Communications	3
BUS-294	Business Law	3
BUSMG-120	Introduction to Management Studies.....	3
total minimum required units		12

Certificate of achievement

Management and leadership studies

Students completing the program will be able to...

- A. integrate basic management theories into supervisory and management functions.
- B. investigate current management practices and problems related to human behavior in organizations.
- C. differentiate threshold issues involved in the legal, ethical, and social responsibilities of management.
- D. summarize measures that can be taken by individuals and organizations to correct organizational problems.

This program benefits students preparing to become managers and supervisors, and it is also valuable for persons already holding these positions.

The management and leadership studies certificate provides career opportunities as an administrative analyst, office manager, small business owner, operations manager, program coordinator, human resources professional, facilities manager, organizational development specialist, branch manager, or shift supervisor.

To earn a certificate of achievement in management and leadership studies, students must complete each course used to meet a certificate requirement with a "C" grade or higher. All coursework required for the certificate must be completed within seven years of the certificate date.

<i>required courses:</i>		<i>units</i>
BUS-109	Introduction to Business.....	3
BUS-250	Business Communications.....	3
BUS-294	Business Law.....	3
BUSMG-120	Introduction to Management Studies.....	3
BUSMG-121	Practices and Concepts of Supervision.....	3
BUSMG-131	Managing Diversity in the Workplace.....	3
BUSMG-132	Human Resource Management.....	3
BUSMG-226	Group Behavior and Leadership.....	3
total minimum required units		24

Course substitutions for program requirements require department chairperson approval. Substitutions are limited to 6 units outside the management department.

**Certificate of achievement
Office professional
business information worker**

Students completing the program will be able to...

- A. apply oral and written communication best practices.
- B. evaluate business situations using mathematics and software.
- C. demonstrate competency in inter-personal and intra-personal skills.
- D. compile and organize business data using business software.

This certificate program prepares students for entry-level positions in small and large business offices requiring support staff such as receptionists, administrative assistants, and general clerical assistance.

Changes occur rapidly in the office information and technology environment; therefore, students should meet with an office professional certificate advisor in the business division to determine elective coursework that will assist them in reaching their personal and professional goals.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher.

All coursework required for the certificate must be completed within seven years of the certificate date.

<i>required courses:</i>		<i>units</i>
BUS-100	Keyboarding.....	1
BUS-101	Business English.....	3
BUS-102	Applied Business Math Calculations.....	1
BUS-103	Applied Business Mathematics.....	3
BUS-109	Introduction to Business.....	3
BUS-250	Business Communication.....	3

plus at least 2 units from:

BUS-295	Occupational Work Experience Education in BUS.....	1-4
BUS-296	Internship in Occupational Work Experience Education in BUS.....	1-4

plus at least 8 units from:

CIS-115	Microsoft Word – Comprehensive.....	2
CIS-116	Microsoft Excel – Comprehensive.....	2
CIS-118	Microsoft PowerPoint – Comprehensive.....	2
CIS-119	Microsoft Outlook – Comprehensive.....	2
COMSC-101	Computer Literacy.....	4

plus at least 5 units from:

BUSMG-160	Managing Conflict and Workplace Relationships.....	0.5
BUSMG-161	Leading Groups and Teams.....	0.5
BUSMG-165	Managing Stress.....	0.5
BUSMG-166	Time Management.....	0.5
BUSMG-167	Writing and Presenting a Business Plan.....	0.5
BUSMG-168	Customer Service.....	0.5
BUSMG-170	Effective Oral Presentations.....	0.5
BUSMG-173	Intercultural Communication in the Workplace.....	0.5
BUSMG-174	Business Ethics.....	0.5
BUSMG-175	Records Management.....	0.5
total minimum required units		29

**Certificate of achievement
Real estate**

Students completing the program will be able to...

- A. explain the functions of real estate markets, real estate practices, and real estate institutions, and recommend choices for common real estate situations.
- B. demonstrate how to calculate the time value of money and evaluate various financing alternatives for real estate investment strategies.
- C. evaluate real estate development opportunities in the commercial real estate markets for residential, warehouse, retail, and industrial properties.
- D. research and analyze specific case problems related to real estate investment and present solutions.

To earn a certificate of achievement in real estate, students must complete each course used to meet a certificate requirement with a "C" grade or higher. All required courses are available in the evening. All coursework required for the certificate must be completed within seven years of the certificate date.

<i>required courses:</i>		<i>units</i>
RE-160	Real Estate Principles.....	3
RE-161	Legal Aspects of Real Estate.....	3
RE-162	Real Estate Appraisal I.....	3
RE-163	Real Estate Practice.....	3
RE-164	Real Estate Finance.....	3
RE-165	Real Estate Economics.....	3

plus at least 6 units from:

BUS-294	Business Law.....	3
BUSAC-186	Financial Accounting.....	4
RE-166	Escrow Procedures.....	3
RE-167	Real Estate Property Management.....	3
total minimum required units		24

Certificate of accomplishment - Real estate salesperson

Students completing the program will be able to...

- A. define and explain concepts and terminology relevant to real estate and real estate transactions.
- B. compare and contrast the broker/agent and agent/client relationships; legal and fiduciary obligations.
- C. structure real estate transactions that result in optimum property rights for buyers and sellers.

The courses listed in the real estate salesperson certificate of accomplishment will qualify and prepare a student to take the written examination for a real estate salesperson license. Upon successfully passing the examination and other California Bureau of Real Estate (CalBRE) requirements, a license will be approved by the CalBRE. This license is required to conduct real estate activities while under the supervision of a licensed broker. For additional information regarding the Real Estate Salesperson license, refer to <http://www.dre.ca.gov>.

To earn a certificate of accomplishment, students must complete each of the required courses with a "C" grade or higher. Certificate requirements may be completed by a combination of day and evening classes.

<i>required courses:</i>		<i>units</i>
RE-160	Real Estate Principles	3
RE-163	Real Estate Practice	3
<i>plus at least 3 units from:</i>		
RE-161	Legal Aspects of Real Estate	3
RE-162	Real Estate Appraisal I	3
RE-164	Real Estate Finance	3
RE-165	Real Estate Economics	3
RE-166	Escrow Procedures	3
RE-167	Real Estate Property Management	3

total minimum required units **9**

Certificate of accomplishment - Small business management/entrepreneurship

Students completing the program will be able to...

- A. describe the nature and characteristics of successful entrepreneurs.
- B. summarize the responsibilities of entrepreneurs/small business owners in selecting, motivating, training, and supervising employees.
- C. construct a business plan and essential financial documents for a small business or entrepreneurial venture.

This program is designed to prepare students for planning, organizing, and operating a small business or entrepreneurship venture. Courses involve those that will provide students with basic knowledge and skills in various business functional areas such as business management, marketing, accounting and finance, as well as those needed in business planning.

The small business management/entrepreneurship certificate of accomplishment provides the basic foundation of business competencies and management strategies that will enable students to succeed as an entrepreneur, small business owner, partner, manager, or inventor.

To earn a certificate of accomplishment in small business management/entrepreneurship, students must complete each course with a "C" grade or higher. All coursework required for the certificate must be completed within seven years of the certificate date.

<i>required courses:</i>		<i>units</i>
BUS-109	Introduction to Business	3
<i>plus at least 3 units from:</i>		
BUSMG-191	Small Business Management	3
BUSMG-192	Entrepreneurship and Venture Management	3
<i>plus at least 1.5 units from:</i>		
BUSAC-181	Applied Accounting	3
BUSAC-185	QuickBooks Accounting for Business I	1.5
BUSAC-186	Financial Accounting	4
<i>plus at least 4.5 unit from:</i>		
BUS-209	International Business	3
BUS-210	Introduction to e-Business	3
BUS-295	Occupational Work Experience Education in BUS	1-4
BUS-296	Internship in Occupational Work Experience Education in BUS	1-4
BUS-298	Independent Study	0.5-3
BUSAC-187	Managerial Accounting	4
BUSAC-188	QuickBooks Accounting for Business II	1.5
BUSMG-120	Introduction to Management Studies	3
BUSMK-256	Marketing	3
 total minimum required units		 12

BUS-100 Keyboarding

- 1 unit SC
- 9 hours lecture/27 hours laboratory per term
- Note: Credit by examination option available.

This course presents the theory and practical applications of touch-typing. Emphasis will also be placed on typing speed and accuracy as well as postural principles to minimize fatigue and prevent injury. CSU

BUS-101 Business English

- 3 units SC
- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents the study of the English language from a business perspective. Grammar, punctuation, spelling, business vocabulary, sentence structure, and the structure and the creation of a variety of business documents will be examined. The processes and ethics of writing clearly and correctly in different business contexts will also be covered. CSU

BUS-102 Applied Business Math Calculations

1 unit SC

- 18 hours lecture per term
- Note: Credit by examination option available.

This course presents basic mathematical problem solving techniques applied to business contexts. Topics include operations with whole numbers, integers, decimals, and fractions as well as basic linear equations using arithmetic operators. CSU

BUS-103 Applied Business Mathematics

3 units SC

- 54 hours lecture/18 hours laboratory per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is an examination of key concepts and applications of mathematics to solve business problems. Topics include calculating percentages and commissions, trade and cash discounts, markups and markdowns, banking, payroll, taxes, insurance, simple and compound interest, inventory and turnover, depreciation, analysis of financial statements, international business mathematics applications, stocks and bonds, and annuities. CSU

BUS-104 Exploring Careers in Business Administration

1.5 units SC

- 18 hours lecture/22 hours laboratory per term

This course provides an overview of specializations within business administration including management, accounting, and marketing. Students explore these specializations through lectures and guest speakers from the business community. Students develop a business plan using current business practices such as teamwork, problem solving, and communication. This course is designed for students preparing to enter college and provides a substantive perspective of business administration as an academic major. CSU

BUS-109 Introduction to Business

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This survey course provides an introduction to the study of the modern business enterprise. Students will examine the role of business in a market economy, survey current business trends and evaluate the global, financial, and social environment in which businesses exist and operate. Moreover, the course will describe the evolution, formation and management of American and international businesses, and provide a basic understanding of various functional areas of business, including economics, marketing, finance, management, human resources, international operations, and business decision-making using information technology. C-ID BUS 110, CSU, UC

BUS-145 Business Spreadsheet Applications

2 units SC

- 27 hours lecture/27 hours laboratory per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree. The laboratory (lab) hours for this course may be offered as face to face lab or online lab. See schedule of classes for specific requirements.
- Formerly BUSIM-145

A business applications course, which uses a foundation of basic spreadsheet skills to emphasize the solving of business problems using a commercial spreadsheet program such as Excel. Business oriented cases and problems will be used to present and reinforce procedures for planning, designing, creating, and preparing worksheets. Preparation of business reports, incorporating graphs and database features, and time saving techniques will also be presented. Development of business problem-solving skills is emphasized. Recommended for employment preparation and upgrading of business skills. CSU

BUS-150 Topics in Business

.3-4 units SC

- Variable hours

A supplemental course in business to provide a study of current concepts and problems in business and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

BUS-161 Personal Financial Management

3 units SC

- 54 hours lecture per term
- Recommended: BUS-103 and eligibility for ENGL-122 or equivalents

This is an introductory course for planning and managing individual finances. Topics include purchasing decisions, sources of credit, personal tax strategies, budgeting, saving, investing in real estate and securities, insuring personal resources and retirement planning. CSU

BUS-209 International Business

3 units SC

- 54 hours lecture per term
- Recommended: BUS-109 and eligibility for ENGL-122 or equivalents

This course presents an overview of the theories and practices of modern international business. The key functional areas related to global business, including international marketing, finance and management, as well as the political, social, economic and cultural factors that help shape and influence today's international business environment will be examined. The course culminates with students developing a market entry strategy for a local business to a foreign market. CSU

BUS-210 Introduction to e-Business

3 units SC

- 54 hours lecture per term
- Note: Eligibility for ENGL-122 or equivalent

This course provides an introduction to the modern world of e-business and e-commerce. Topics include e-business models and strategy, e-commerce platforms, multi-channel marketing and advertising, electronic payments and digital currency, security risks as well as important ethical and legal issues in e-business and e-commerce. E-business and e-commerce trends will also be discussed, including peer-to-peer commerce and on-demand service models, business-to-business models, e-marketplaces, global e-business infrastructure and supply chain management, as well as the roles of social networks and mobile platforms. CSU

BUS-240 Business Statistics

3 units SC

- 54 hours lecture/18 hours laboratory per term
- Prerequisite: Placement into BUS-240; or MATH-119; MATH-119SP; or MATH-120; or MATH-120SP; or assessment process or equivalent.

This course is an introduction to concepts, tools, methods and models employed in reasoning with numbers and in presenting cogent statistical arguments or solutions. Students are introduced to organizational, analytical and inference-making processes, using sample data to graphically and numerically describe samples, including identifying varying levels of measurement possible in variables and their implications for statistical computation and inference-making. The course details how to estimate confidence intervals, test hypotheses and develop projections for inferential purposes in a variety of contexts and disciplines such as business, social science, biology, economics, and health science. Many different probability distributions are covered: poisson, binomial, normal, student-t, chi-sq, F-distribution and others. Performing Analysis of Variance (ANOVA), estimating simple and multiple regressions, and making inference from such analysis is a major theme of this course. The use of spreadsheet-based software to compute statistics in large-data applications is an important part of lab work. C-ID MATH 110, CSU, UC (credit limits may apply to UC-see counselor)

BUS-250 Business Communications

3 units SC

- 54 hours lecture per term
- Recommended: BUS-101 and eligibility for ENGL-122 or equivalents
- Note: Credit by examination option available.

This course presents the principles of effective and ethical communication in the creation of letters, memos, and emails. Written and oral reports for a variety of business situations are also covered. The course also explores planning, organizing, composing, and revising business documents, as well as the use of presentation software to create and deliver professional-level reports. CSU

BUS-261 Investments

3 units SC

- 54 hours lecture per term
- Recommended: BUS-109 or equivalent

This is a comprehensive course that provides an overview of financial markets and financial assets such as stocks, bonds and mutual funds, develops a basic understanding of how to value different financial assets and select investment opportunities, and improves research and analytical skills for better investment decision making. CSU

BUS-294 Business Law

3 units SC

- 54 hours lecture per term
- Recommended: BUS-109 and eligibility for ENGL-122 or equivalents

This course presents a general overview of the specific areas of the legal environment that affect individuals and businesses with an emphasis on contracts, including the Uniform Commercial Code, Article 2. Legal history, civil procedure, constitutional law, torts, intellectual property, cyber law, criminal law, international law, labor and employment law, and agency will also be covered. C-ID BUS 125, CSU, UC

BUS-295 Occupational Work Experience Education in BUS

1-4 units SC

- May be repeated three times
- Variable hours
- Note: In order to enroll in BUS-295, students must be employed, register for the course, complete an online Employment Form, and participate in an orientation. Employment Form can be accessed at www.dvc.edu/wrkx. Incomplete grades are not awarded for this course.

BUS-295 is supervised employment that extends classroom learning to the job site and relates to the student's chosen field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Five hours work per week or seventy-five hours work per term is equal to one unit. Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

BUS-296 Internship in Occupational Work Experience Education in BUS

1-4 units SC

- *May be repeated three times*
- *Variable hours*
- *Note: In order to enroll in the BUS-296 course, students must be interning or volunteering, register for the course, complete an online Employment Form, and participate in an orientation. The Employment Form can be accessed at www.dvc.edu/wrkx. Incomplete grades are not awarded for this course.*

BUS-296 is a supervised internship in a skilled or professional level assignment in the student's major field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Internships may be paid, non-paid, or some partial compensation provided. Five hours work per week or seventy-five hours work per term is equal to one unit (paid) or one unit for four hours work per week or sixty hours per term (unpaid work). Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

BUS-298 Independent Study

.5-3 units SC

- *Variable hours*
- *Note: Submission of acceptable educational contract to department and Instruction Office is required.*

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

BUS-299 Student Instructional Assistant

.5-3 units SC

- *Variable hours*
- *Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.*

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

BUSINESS ACCOUNTING – BUSAC

Despina Prapavessi, Dean

Business Division

Math Building, Room 267

Possible career opportunities

Study in accounting prepares students for careers in book-keeping, private and public accounting, auditing, tax preparation and administration, cost and managerial accounting, financial services, payroll, software systems, corporate governance and financial investigation. Some career options require more than two years of college study.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in science degree Accounting

Students completing the program will be able to...

- construct basic accounting documents and solve case problems related to the accounting cycle utilizing appropriate technology.
- analyze existing documents by verifying the accuracy of information for a company and performing necessary reconciliation.
- evaluate financial data in a business environment and apply ethical business judgment for decision making.

This technical curriculum is designed to provide an opportunity for accounting students to achieve an associate in science degree in accounting after completing a comprehensive series of courses in the area of accounting. Completion of the courses in this program demonstrates commitment to the field of accounting, provides comprehensive preparation for employment in accounting-related occupations, and meets a portion of the educational requirements for the California CPA exam (For additional requirements please go to www.dca.ca.gov/cpa).

This degree is not recommended for transfer students and DVC accounting students in this program who intend to transfer should consult with a program advisor or counselor to ensure that the requirements for transfer to four-year institutions of their choice are met. Students who intend to transfer are also advised to select either General Education Option 2 (IGETC) or Option 3 (CSU GE). General Education Option 1 (DVC General Education) does not meet requirements for most transfer institutions.

Business accounting

To earn an associate degree with a major in accounting, students must satisfactorily complete a minimum of sixty (60) units of degree applicable coursework with a grade point average of 2.0 (C) or higher. Certain courses may satisfy both major and general education requirements; however, the units are only counted once. All coursework required for the degree major must be completed within seven years of the degree date.

<i>major requirements:</i>		<i>units</i>
BUS-145	Business Spreadsheet Applications.....	2
BUSAC-186	Financial Accounting.....	4
BUSAC-187	Managerial Accounting	4

<i>plus at least 3 units from:</i>		
BUS-240	Business Statistics.....	3
BUS-250	Business Communications	3
BUS-295	Occupational Work Experience Education in BUS	1-4
BUSAC-182	Computer Income Tax Return Preparation - Individuals	1.5
BUSAC-185	QuickBooks Accounting for Business I.....	1.5
BUSAC-188	QuickBooks Accounting for Business II	1.5
BUSAC-190	Payroll Accounting	1.5

<i>plus at least 12 units from:</i>		
BUS-294	Business Law	3
BUSAC-282	Intermediate Accounting I.....	4
BUSAC-283	Auditing	3
BUSAC-284	Cost Accounting.....	3
BUSAC-285	Federal Income Taxes – Individuals.....	3
BUSAC-286	Governmental and Not-For-Profit Accounting	3
BUSAC-290	Financial Statement Analysis.....	4
BUSAC-292	Intermediate Accounting II	4
BUSAC-293	Accounting Ethics and Accountants' Professional Responsibilities.....	4

<i>plus at least 3 units from:</i>		
BUS-209	International Business.....	3
BUS-240	Business Statistics.....	3
BUS-250	Business Communications	3
BUSMG-191	Small Business Management	3
BUSMG-192	Entrepreneurship and Venture Management	3
total minimum units for the major		28

Certificate of achievement

Advanced accounting

Students completing the program will be able to...

- A. produce accurate financial statements for a company and communicate a company's financial position.
- B. construct basic accounting documents and solve case problems related to the accounting cycle utilizing appropriate technology.
- C. analyze existing documents by verifying the accuracy of information for a company and performing necessary reconciliation.
- D. compare and contrast the financial information prepared for different types of business entities.

The certificate of achievement in advanced accounting builds on the curriculum in the general accounting certificate program and is designed to add technical depth and analytical skill-set development in the areas of financial accounting, auditing, cost accounting, individual income taxation, governmental and not-for-profit accounting and corporate financial reporting for those students with a solid foundation in general accounting. Subjects in this program prepare students for higher level accounting positions and for taking certification examinations in the field of accounting such as enrolled agent, certified fraud examiner, certified internal auditor, certified public accountant or certified management accountant.

Students are required to obtain a "C" grade or higher in all required courses. At least 25 percent of the units must be completed at DVC. All coursework required for the certificate must be completed within seven years of the certificate date.

<i>required courses:</i>		<i>units</i>
BUS-145	Business Spreadsheet Applications.....	2
BUSAC-186	Financial Accounting.....	4
BUSAC-187	Managerial Accounting	4

<i>plus at least 3 units from:</i>		
BUS-240	Business Statistics.....	3
BUS-250	Business Communications	3
BUS-295	Occupational Work Experience Education in BUS	1-4
BUSAC-182	Computer Income Tax Return Preparation - Individuals	1.5
BUSAC-185	QuickBooks Accounting for Business I.....	1.5
BUSAC-188	QuickBooks Accounting for Business II	1.5
BUSAC-190	Payroll Accounting	1.5

<i>plus at least 12 units from:</i>		
BUS-294	Business Law	3
BUSAC-282	Intermediate Accounting I.....	4
BUSAC-283	Auditing	3
BUSAC-284	Cost Accounting.....	3
BUSAC-285	Federal Income Taxes – Individuals.....	3
BUSAC-286	Governmental and Not-For-Profit Accounting	3
BUSAC-290	Financial Statement Analysis.....	4
BUSAC-292	Intermediate Accounting II.....	4
BUSAC-293	Accounting Ethics and Accountants' Professional Responsibilities.....	4

<i>plus at least 3 units from:</i>		
BUS-209	International Business.....	3
BUS-240	Business Statistics.....	3
BUS-250	Business Communications	3
BUSMG-191	Small Business Management	3
BUSMG-192	Entrepreneurship and Venture Management	3
total minimum required units		28

**Certificate of achievement
Bookkeeping**

Students completing the program will be able to...

- A. enter basic accounting transactions into an accounting software program.
- B. consolidate accounts on a monthly basis to track business income and expenses.
- C. compare and contrast the financial information prepared for different types of business entities.

The certificate program in bookkeeping is designed to provide basic business knowledge for obtaining entry-level employment in jobs requiring bookkeeping and accounting skills. Course content emphasizes small business applications for both a service and merchandising business and includes a solid foundation in bookkeeping principles and the classifying and double-entry recording of financial transactions and preparation of the income statement and balance sheet.

Students are required to obtain a "C" grade or higher in all required courses. At least 25 percent of the units must be completed at DVC. All coursework required for the certificate must be completed within seven years of the certificate date.

<i>required courses:</i>	<i>units</i>
<i>at least 3 units from:</i>	
BUSAC-181 Applied Accounting.....	3
BUSAC-186 Financial Accounting.....	4

<i>plus at least 9 units from:</i>	
BUS-145 Business Spreadsheet Applications.....	2
BUS-250 Business Communications	3
BUS-295 Occupational Work Experience Education in BUS	1-4
BUSAC-182 Computer Income Tax Return Preparation - Individuals	1.5
BUSAC-185 QuickBooks Accounting for Business I.....	1.5
BUSAC-188 QuickBooks Accounting for Business II.....	1.5
BUSAC-190 Payroll Accounting	1.5
total minimum required units	12

**Certificate of achievement
General accounting**

Students completing the program will be able to...

- A. produce accurate financial statements for a company and communicate a company's financial position.
- B. construct basic accounting documents and solve case problems related to the accounting cycle utilizing appropriate technology.
- C. analyze existing documents by verifying the accuracy of information for a company and performing necessary reconciliation.
- D. compare and contrast the financial information prepared for different types of business entity.

This entry-level accounting certificate provides students with basic accounting and computer accounting coursework. Completion of the certificate will enable students to apply for entry-level positions in accounting.

Students are required to obtain a "C" grade or higher in all required courses. Certificate courses are offered in a combination of day, evening, weekend and online courses. At least 25 percent of the units must be completed at DVC. All coursework required for the certificate must be completed within seven years of the certificate date.

<i>required courses:</i>	<i>units</i>
BUS-145 Business Spreadsheet Applications.....	2
BUSAC-186 Financial Accounting.....	4
BUSAC-187 Managerial Accounting.....	4
<i>plus at least 3 units from:</i>	
BUS-240 Business Statistics.....	3
BUS-250 Business Communications	3
BUS-295 Occupational Work Experience Education in BUS	1-4
BUSAC-182 Computer Income Tax Preparation- Individuals	1.5
BUSAC-185 QuickBooks Accounting for Business I.....	1.5
BUSAC-188 QuickBooks Accounting for Business II.....	1.5
BUSAC-190 Payroll Accounting	1.5
total minimum required units	13

BUSAC-150 Topics in Business Accounting

- .3-4 units SC
- Variable hours

A supplemental course in business accounting to provide a study of current concepts and problems in Business Accounting and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

BUSAC-181 Applied Accounting

- 3 units SC
- 54 hours lecture/18 hours laboratory per term
- Recommended: BUS-103 and eligibility for ENGL-122 or equivalents
- Note: This course is a recommended primer for the BUSAC-186 "business major" transfer course. Credit by examination option available. The laboratory (lab) hours for this course may be offered as face to face lab or online lab. See schedule of classes for specific requirements.

A beginning accounting course that involves a practical approach emphasizing small business applications. This course covers the accounting cycle for a sole proprietorship. Includes journals and ledgers; financial statements; adjusting, correcting, and closing entries; bank reconciliation; payroll; calculations for interest, discounts, sales, and payroll taxes. Also includes an introduction to the use of an accounting software program. CSU

BUSAC-182 Computer Income Tax Return Preparation - Individuals

- 1.5 units SC
- 18 hours lecture/27 hours laboratory per term
 - Recommended: BUSAC-285 and eligibility for ENGL-122 or equivalents
 - Note: Course may be repeated when software program changes. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree. The laboratory (lab) hours for this course may be offered as face to face lab or online lab. See schedule of classes for specific requirements.

This is a course that uses a popular tax software program or online filing system to prepare income tax returns for an individual. Topics will include the basic tax formula, filing status, exemptions, dependents and the procedures for creating a taxpayer file and processing income, deductions, credits, capital gains and losses, and business activities to produce a final tax return. CSU

BUSAC-185 QuickBooks Accounting for Business I

- 1.5 units SC
- 18 hours lecture/27 hours laboratory per term
 - Recommended: BUSAC-181 or BUSAC-186 and eligibility for ENGL-122 or equivalents
 - Note: Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This is an introductory course in the application of basic accounting knowledge and theory in QuickBooks software. The course content includes sales, invoicing and receivables, payables and purchases, general accounting, financial statements, and end-of-period procedures for a service business. This course builds upon knowledge of bookkeeping principles. CSU

BUSAC-186 Financial Accounting

- 4 units SC
- 72 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent
 - Note: Students seeking an introduction to bookkeeping techniques should register for BUSAC-181 - Applied Accounting.

This course presents the theory, practices and procedures of accounting. The importance of accounting and the use of financial statements by investors, creditors, and others making financial, investment, or regulatory decisions will be examined. Topics include transactions reporting and the accounting cycle, accounting for cash, receivables, inventory, plant and intangible assets, long-term investments, time value of money, liabilities, stockholders' equity, an introduction to analyzing financial statements, and accounting ethics. The application of generally accepted accounting principles and international financial reporting standards will also be covered. C-ID ACCT 110, CSU, UC

BUSAC-187 Managerial Accounting

- 4 units SC
- 72 hours lecture per term
 - Prerequisite: BUSAC-186 or equivalent

This course presents the study of how managers use accounting information in decision-making, planning, directing operations and controlling. The focus is on cost terms and concepts, cost behavior, cost structure and cost-volume-profit analysis. Issues relating to cost systems, cost control, profit planning, and performance analysis in manufacturing and service environments will also be covered. C-ID ACCT 120, CSU, UC

BUSAC-188 QuickBooks Accounting for Business II

- 1.5 units SC
- 18 hours lecture/27 hours laboratory per term
 - Recommended: BUSAC-185 and eligibility for ENGL-122 or equivalents
 - Note: Course may be repeated when software program changes. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree. The laboratory (lab) hours for this course may be offered as face to face lab or online lab. See schedule of classes for specific requirements.

A second level course in computer accounting for business using a recognized software program. Focus will be on developing skills to create a set of records and applications for a merchandising business including sales and receivables, payables and purchases, and end-of-period procedures. Topics will also include payroll and payroll tax reporting and related preparation of employee earnings reports. CSU

BUSAC-190 Payroll Accounting

- 1.5 units SC
- 27 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course covers payroll accounting functions. Topics include how to calculate wages, determine required employer and employee tax deductions, process payroll, and file required reports. Employment legislation and tax laws that affect payroll will also be covered. CSU

BUSAC-282 Intermediate Accounting I

- 4 units SC
- 72 hours lecture per term
 - Prerequisite: BUSAC-186 or equivalent
 - Recommended: BUSAC-187 or equivalent

This advanced financial accounting course builds on the material presented in BUSAC-186. Topics include accounting and reporting for assets, liabilities, and their associated financial impact on earnings. Current issues regarding financial statement preparation and interpretation will also be covered. CSU

BUSAC-283 Auditing

3 units SC

- 54 hours lecture/18 hours laboratory per term
- Prerequisite: BUSAC-186 or equivalent
- Recommended: BUSAC-187 or equivalent
- Note: The laboratory (lab) hours for this course may be offered as face to face or online. See schedule of classes for specific requirements.

This intermediate-level course presents the role and responsibility of Certified Public Accountants (CPA) in the audit of publicly traded and private companies. Emphasis is placed on verification of financial statements and internal control of accounting systems and cycles for publicly traded companies in the United States. Coverage focuses on the legal and ethical responsibilities of auditors as mandated by the Securities Acts of 1933 and 1934 and the Sarbanes Oxley Act of 2002. Topics include auditing standards, professional ethics, legal liability, responsibilities regarding fraud, internal control, audit plans, sampling techniques, auditing of the revenue cycle, auditing of cash and marketable securities, auditing of inventory and the acquisition/payment cycle, auditing of long-lived assets, auditing of debt obligations and stockholders' equity, audit reports, and other complex audit judgment issues. CSU

BUSAC-284 Cost Accounting

3 units SC

- 54 hours lecture/18 hours laboratory per term
- Prerequisite: BUSAC-187 or equivalent
- Note: The laboratory (lab) hours for this course may be offered as face to face lab or online lab. See schedule of classes for specific requirements.

This advanced accounting course explores the accountant's role in measuring, analyzing, and reporting financial and non-financial information to help managers make decisions that fulfill the goals of an organization. Emphasis is on determination, collection and analysis of cost information as it relates to planning, control, and decision making. Additional topics include costing systems, as well as cost allocation, inventory management, transfer pricing, capital budgeting, and the balanced scorecard. CSU

BUSAC-285 Federal Income Taxes-Individuals

3 units SC

- 54 hours lecture/18 hours of laboratory per term
- Recommended: BUSAC-186 and eligibility for ENGL-122 or equivalents

This course concentrates on federal tax law for individuals and includes problem solving, perspectives on tax saving, and tax planning techniques. The Internal Revenue Code, regulations, rulings and court cases will be analyzed and applied. Introduction to tax preparation software is also included. CSU

BUSAC-286 Governmental and Not-For-Profit Accounting

3 units SC

- 54 hours lecture per term
- Prerequisite: BUSAC-186 or equivalent
- Recommended: BUSAC-187 or equivalent

This course presents the accounting practices used in governmental units, private not-for-profit organizations, colleges and universities, hospitals, and tax-exempt organizations. Basic characteristics of fund accounting, reporting objectives and standards, budgetary process, issues of reporting and disclosure will be covered. CSU

BUSAC-290 Financial Statement Analysis

4 units SC

- 72 hours lecture per term
- Prerequisite: BUSAC-282 or equivalent
- Recommended: Eligibility for ENGL-122 or equivalent

This advanced accounting course explores the analysis of financial statements to evaluate past performance and predict the future performance of a company. Emphasis is placed on corporate financial reporting and the implications on businesses decisions through the examination of financial statements and disclosure examples. CSU

BUSAC-292 Intermediate Accounting II

4 units SC

- 72 hours lecture per term
- Prerequisite: BUSAC-282 or equivalent

This course presents advanced accounting principles that builds on the material in BUSAC-282. Topics include accounting for long-term liabilities, stockholders' equity, investing assets, income taxes, leases, pensions, earnings per share, changes and error corrections, revenue recognition, and the statement of cash flows. CSU

BUSAC-293 Accounting Ethics and Accountants' Professional Responsibilities

4 units SC

- 72 hours lecture per term
- Prerequisite: BUSAC-186 or equivalent

This course introduces ethical standards for accounting professionals with emphasis on contemporary issues, including social and ethical responsibilities. This course meets the three semester unit requirement in accounting ethics and accountants' professional responsibilities for Certified Public Accountant (CPA) licensure. CSU

BUSAC-299 Student Instructional Assistant

.5-3 units SC

- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

BUSINESS MANAGEMENT – BUSMG

Despina Prapavessi, Dean
Business Division
Math Building, Room 267

Certificates of achievement

Management and leadership studies - See BUS
Small business management/entrepreneurship -
See BUS

Certificates of accomplishment

Small business management/entrepreneurship -
See BUS

BUSMG-120 Introduction to Management Studies

3 units SC

- 54 hours lecture per term
- Recommended: BUS-109 or equivalent; eligibility for ENGL-122 or equivalent

This course introduces management theories and their application to various work environments. Topics include management principles and organizational planning, structuring, staffing, directing, and controlling. The legal, ethical, and social responsibilities of management will also be covered. CSU

BUSMG-121 Practices and Concepts of Supervision

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course provides a real world approach to management practices and concepts. Each of the management functions - planning, organizing, influencing, and controlling - will be explained from the standpoint of how each function inter-relates in the management process. Student participation includes a variety of management exercises and case study discussions. CSU

BUSMG-131 Managing Diversity in the Workplace

3 units LR

- 54 hours lecture per term
- Recommended: BUS-109 and eligibility for ENGL-122 or equivalents

This course explores issues relating to the management of workplace diversity - individual, group, and cultural differences. How to recognize, understand, and adapt to these differences in order to create cohesive and productive work units will also be covered in this course. CSU

BUSMG-132 Human Resource Management

3 units SC

- 54 hours lecture per term
- Recommended: BUS-109 and eligibility for ENGL-122 or equivalents

This course presents a comprehensive study of human resource management in organizations. Topics include human resource planning, recruitment and selection, training and development, and retention through compensation and benefits, performance appraisal, and career management. Values, legal and ethical issues, leadership and communication, conflict resolution, and organizational culture will also be covered. CSU

BUSMG-150 Topics in Management Studies

.3-4 units SC

- Variable hours
- Recommended: BUS-109 and eligibility for ENGL-122 or equivalents

A supplemental course in business management to provide a study of current concepts and problems in business management. Specific topics will be announced in the schedule of classes. CSU

BUSMG-160 Managing Conflict and Workplace Relationships

.5 unit SC

- 9 hours lecture per term

This course will explore methods to resolve conflict as well as strategies to manage conflict that cannot be resolved. Effective communication techniques will be emphasized. CSU

BUSMG-161 Leading Groups and Teams

.5 unit SC

- 9 hours lecture per term

This course will review research on small group and team interactions, and offer practical tools to better manage intra-team relationships, team projects and team effectiveness. Emphasis is placed on helping teams navigate organizational hazards, so they can focus on productive outcomes. CSU

BUSMG-165 Managing Stress

.5 unit SC

- 9 hours lecture per term

This course will examine the nature of stress and offer students strategies to recognize, adapt, and buffer stressors. CSU

BUSMG-166 Time Management

.5 unit SC

- 9 hours lecture per term

This course will address setting goals and priorities, leveraging resources, monitoring progress, and taking responsibility for outcome in order to maximize the effective use of time. CSU

BUSMG-167 Writing and Presenting a Business Plan

- .5 unit SC
 • 9 hours lecture per term

In this course students will explore their proposed business, core competencies, competitors, and customers through designing a business plan. Survival tactics will be presented to increase the chances of success in fluctuating business environments. CSU

BUSMG-168 Customer Service

- .5 unit SC
 • 9 hours lecture per term

This course presents the competencies needed to develop a joint purpose, show compassion, and be generous and trustworthy with customers, co-workers, and external stakeholders. The relationship of customer service skills to career success will be examined. CSU

BUSMG-170 Effective Oral Presentations

- .5 unit SC
 • 9 hours lecture per term

This course will examine how to analyze an audience, identify intent, and make the most of messages. Students will craft content, design visual aids, and refine nonverbal delivery. CSU

BUSMG-171 Listening and Responding in the Workplace

- .5 unit SC
 • 9 hours lecture per term

This course provides students with an understanding of how listening skills are part of effective business communication. Active listening techniques will be studied as a strategy to better discern communicated messages. CSU

BUSMG-172 Persuasion in Work Settings

- .5 unit SC
 • 9 hours lecture per term

In this course effective persuasive techniques will be presented, including how to make a reasonable request, tie facts to benefits, overcome resistance, and accept compromise. CSU

BUSMG-173 Intercultural Communication in the Workplace

- .5 unit SC
 • 9 hours lecture per term

This course will present individual and cultural factors that affect communication as well as the mores that shape the values, experiences and behavior of others in the workplace. Techniques to prepare students to effectively interact with someone who approaches life from a different world view will be discussed. CSU

BUSMG-174 Business Ethics

- .5 unit SC
 • 9 hours lecture per term

The course introduces the theory and practice of ethical decision making in the workplace. Topics include ethical theories, ethical dilemma resolution, social responsibility, ethics of whistle-blowing, and ethics and technology. CSU

BUSMG-175 Records Management

- .5 unit SC
 • 9 hours lecture per term

This course introduces the practical applications of alphabetic, numeric, geographic, and subject filing systems and procedures. Topics include paper and electronic records management, safety, security, and disaster recovery. CSU

BUSMG-191 Small Business Management

- 3 units SC
 • 54 hours lecture per term
 • Recommended: BUS-103, BUS-109; eligibility for ENGL-122 or equivalents

This course presents the functional areas of marketing, finance, and human resources unique to small businesses. This course is particularly relevant for students who want to start a small business or are involved in the ongoing management of an existing small business. Topics include creating a business plan, managing a family-owned business, becoming a franchisee, and applying for a Small Business Administration (SBA) loan. CSU

BUSMG-192 Entrepreneurship and Venture Management

- 3 units SC
 • 54 hours lecture per term
 • Recommended: BUS-103, 109; eligibility for ENGL-122 or equivalents

This course is designed for students who want to become entrepreneurs and successfully launch new business ventures. This course will cover the process of successfully launching, managing and growing an entrepreneurial firm, emphasizing opportunity recognition and feasibility analysis. It will also cover important topics such as developing an effective business model, protecting intellectual property and obtaining venture capital financing. Students will get hands-on entrepreneurial experience by designing their own entrepreneurial venture and developing a business plan. CSU

BUSMG-226 Group Behavior and Leadership

- 3 units LR
 • 54 hours lecture per term
 • Recommended: BUS-109 and eligibility for ENGL-122 or equivalents

This course will provide theoretical foundations and practical experiences with group behavior and leadership. Emphasis will be placed on self-awareness in a group setting. The course includes the examination of workforce diversity, motivation, decision-making, and organizational politics. CSU

BUSINESS MARKETING - BUSMK

Despina Prapavessi, Dean
Business Division
Math Building, Room 267

Certificate of achievement

Business marketing - see BUS

BUSMK-158 Professional Selling

3 units SC

- 54 hours lecture per term
- Recommended: BUS-109 and eligibility for ENGL-122 or equivalents

This is a course on the theory and practice of personal selling with a focus on relationship marketing and a concentration on the selling process. This course includes an emphasis on sales strategies, techniques, settings, and skills development in product knowledge, customer analysis, prospecting, presenting, and closing the sale. Team sales presentation are also addressed. CSU

BUSMK-255 Advertising

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents the historical, social, ethical, economic, and regulatory aspects of advertising. Media and creative strategies for traditional and electronic markets will be explored. Topics will include effects of consumer behavior patterns, the client-agency relationship, and the development and evaluation of advertising campaigns. CSU

BUSMK-256 Marketing

3 units SC

- 54 hours lecture per term
- Recommended: BUS-109 and eligibility for ENGL-122 or equivalents

This course is an introduction to marketing functions involved in facilitating the exchange of goods and services. It presents a focus on the analysis of markets; assessment of the marketing environment; formulation of marketing strategy; and development of the marketing mix variables of product, price, promotion, and distribution. Ethical issues will also be considered. CSU

BUSMK-258 Advertising and Gender

3 units SC

- 54 hours lecture per term
- Recommended: BUSMK-255 or equivalent, Eligibility for ENGL-122 or equivalent

This course examines gender stereotypes, sex appeals, and body image in advertising. The use of celebrities as endorsers, spokespersons, or brand symbols are also explored. Students will conduct content analysis of gender-role portrayals in print, television, and digital advertising. A special emphasis is placed on gender and ethics in advertising. CSU, UC

BUSMK-259 Digital Marketing Fundamentals

3 units SC

- 54 hours lecture per term
- Recommended: BUSMK-255 or equivalent, Eligibility for ENGL-122 or equivalent

This course explores the rapidly evolving world of digital marketing and how it is reshaping the way businesses and brands engage their customers. A detailed understanding of digital marketing concepts, tools, tactics, and strategies will be covered. Students will also create an integrated digital marketing campaign. CSU

BUSMK-260 Social Media Marketing

3 units SC

- 54 hours lecture per term
- Recommended: BUSMK-255 or equivalent, Eligibility for ENGL-122 or equivalent

This interactive course provides a thorough grounding in all facets of social media marketing. The development of a social media strategy, building a target audience profile, choosing appropriate social media platforms, crafting engaging social media content, and creating an effective social media marketing plan will be covered. Emphasis is placed on fostering effective collaboration, demonstrating tactical execution, and monitoring social media. CSU

BUSMK-261 Digital Marketing Analytics

3 units SC

- 54 hours lecture per term
- Recommended: BUS-240 or equivalent, Eligibility for ENGL-122 or equivalent

This course applies analytical tools to translate business intelligence into structured content that helps firms improve Internet marketing results. Students will use various web-analytical software tools to compare search engine formats, social media use, geo-location analysis, and mobile digital analytics. Familiarity with strategic operations of web analytics and the technologies used in these business functions will be explored. CSU

BUSMK-262 Content Marketing

3 units SC

- 54 hours lecture per term
- Recommended: BUSMK-255 or equivalent, Eligibility for ENGL-122 or equivalent

This course covers strategic approaches to content creation, management, and distribution for use across multiple platforms to help support an organization's brand. Developing a content marketing strategy and plan, creating compelling content, and monitoring content performance will be emphasized. CSU

BUSMK-263 Email Marketing

2 units SC

- 36 hours lecture per term
- Recommended: BUSMK-255 or equivalent, Eligibility for ENGL-122 or equivalent

This course introduces email marketing principles and practices as well as the development and implementation of an email marketing strategy. Developing an email marketing campaign, building an email marketing list, choosing email marketing distribution software, writing appropriate email messages, and employing email marketing analytics are included. The course also emphasizes executing and monitoring an email campaign to achieve business objectives. CSU

BUSMK-264 Search Marketing

2 units SC

- 36 hours lecture per term
- Recommended: BUSMK-255 or equivalent, Eligibility for ENGL-122 or equivalent

This course introduces search marketing and the critical role that it plays in an organization's digital marketing strategy and online presence. Search engine optimization (SEO), search engine marketing (SEM), and pay-per-click (PPC) advertising are also explored in depth. Topics include keyword research, on-page ranking factors, link building, SEO copywriting, site architecture, content optimization, and search marketing metrics. Students develop a search marketing campaign using performance indicators to evaluate the campaign's results. CSU

BUSMK-298 Independent Study

.5-3 units SC

- Variable hours
- Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

BUSINESS REAL ESTATE – RE

Despina Prapavessi, Dean

Business Division

Math Building, Room 267

Certificate of achievement

Real estate - See BUS

Certificate of accomplishment

Real estate salesperson - See BUS

RE-150 Topics in Real Estate

.3-4 units SC

- Variable hours

A supplemental course in real estate to provide a study of current concepts and problems. Specific topics will be announced in the schedule of classes. CSU

RE-160 Real Estate Principles

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Applies toward CA Board of Real Estate continuing education and licensing.

This course provides an introduction to the real estate profession. The course covers real and personal property acquisition, ownership, estates in real property, contracts, deeds, financing, taxes, property transfer, agency and other essential topics. It will also assist persons preparing for the real estate salesperson's license examination, although it is not specifically or solely designed as a pre-licensing course. CSU

RE-161 Legal Aspects of Real Estate

3 units SC

- 54 hours lecture per term
- Recommended: RE-160 or valid California real estate license and eligibility for ENGL-122 or equivalents
- Note: Applies toward CA Board of Real Estate continuing education and licensing.

This course will provide an overview of California law as it pertains to the practice of real estate. CSU

RE-162 Real Estate Appraisal I

3 units SC

- 54 hours lecture per term
- Recommended: RE-160 or valid California real estate license and eligibility for ENGL-122 or equivalents
- Note: Applies toward CA Department of Real Estate educational requirements for real estate licenses

This is a basic course in real estate valuation with emphasis on residential property. Topics will include definitions and concepts, principles of valuation, and the appraisal process. CSU

RE-163 Real Estate Practice

- 3 units SC
- 54 hours lecture per term
 - Recommended: Valid California real estate license or RE-160 and eligibility for ENGL-122 or equivalents
 - Note: Applies toward the state educational requirements for brokers license

This course is a comprehensive and practical presentation of the knowledge necessary to be effective in the real estate industry. Topics include: techniques of prospecting, listing, selling, financing, purchase agreements, escrow, exchange, and property management. CSU

RE-164 Real Estate Finance

- 3 units SC
- 54 hours lecture per term
 - Recommended: RE-160 and eligibility for ENGL-122 or equivalents
 - Note: Applies toward the state educational requirements for the sales or broker's license

This course is an overview of real estate finance including conventional, Federal Housing Authority (FHA), Veterans Administration (VA) and non-institutional loans. Other topics include construction, investment, and creative financing. CSU

RE-165 Real Estate Economics

- 3 units SC
- 54 hours lecture per term
 - Recommended: RE-160 or valid CA real estate license or equivalent
 - Note: Applies toward CA Board of Real Estate continuing education and licensing.

This course is an overview of economic concepts and theories as they apply to the functioning of real estate markets. Special attention to the role of government and other economic sectors in the observed value and returns on residential and commercial real estate will be observed. CSU

RE-166 Escrow Procedures

- 3 units SC
- 54 hours lecture per term
 - Recommended: RE-160 or valid California real estate license and eligibility for ENGL-122 or equivalents
 - Note: Applies toward CA Board of Real Estate continuing education and licensing.

This course is an overview of the procedures required to complete a valid escrow in order to close a real estate transaction. Technical skills, legal aspects, ethical restrictions, interfacing with financing and real estate agents will be emphasized. Students are introduced to the procedures and practices from the perspective of both the escrow/title insurance company and the real estate licensee. CSU

RE-167 Real Estate Property Management

- 3 units SC
- 54 hours lecture per term
 - Recommended: RE-160 and eligibility for ENGL-122 or equivalents

This course presents the fundamental elements of managing residential and apartment properties. Topics include commercial and business property management, acquisition, marketing, financing, financial reporting, contracts, leases, Fair Housing Laws, valuation, maintenance, taxes, risk management, insurance, furnishings, and tenant relations. CSU

RE-201 Advanced Real Estate Studies

- .3-4 units SC
- Variable hours
 - Note: May serve to satisfy CA DRE continuing education requirement for industry licensees.

A supplemental course in real estate designed to provide a study of current real estate problems or activities. Specific topics to be announced. CSU

CAREER DEVELOPMENT- CARER

See also Counseling - COUNS

Beth Hauscarriague, Dean
Counseling Division
Student Services Center, Room 203

Possible career opportunities

Diablo Valley College's career development courses are designed to provide students with opportunities to explore career fields and become familiar with the skills needed to successfully obtain and maintain employment.

CARER-100 College and Career Readiness I

- 1.5 units SC
- 27 hours lecture per term
 - Note: Credit by examination option available.

This course introduces career exploration and is designed to assist students in making career and post-secondary decisions. Topics will include self-exploration, career and life planning, job search skills, and decision-making strategies. CSU, UC (Credit limitations may apply to UC, see counselor.)

CARER-101 College and Career Readiness II

- 1.5 units SC
- 27 hours lecture per term
 - Note: Credit by examination option available.

This course introduces college readiness and success skills. In addition, students will explore post-secondary education and career options, budget management, and job search basics. CSU, UC (Credit limitations may apply to UC, see counselor.)

CARER-110 Career and Life Planning

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents research strategies for effective career and major choice selection. Students will use a variety of techniques to find, retrieve, and evaluate career planning information as well as career assessments to identify their preferred work values, interests, skills and personality traits. Focus is placed on the exploration of labor market needs, educational and employment requirements, and career ladders within given professions resulting in an effective educational and job search plan. Employability and interpersonal skills such as communication, critical thinking, creative problem solving, time management, self-esteem and professional confidence, emotional intelligence, conflict resolution, and effective collaboration are also addressed. CSU, UC (credit limits may apply to UC-see counselor)

CARER-120 Career Assessment

1 unit P/NP

- 18 hours lecture per term
- Note: Testing fee required. Not intended for students who have completed CARER-110

In this course, students will utilize self-assessment inventories to identify individual interests, values, skills and personality types as they relate to college/career and major options. Career development software and related technologies to develop skills to enhance the career exploration process will be utilized. CSU

CARER-130 Career and Major Exploration

1 unit P/NP

- 18 hours lecture per term
- Recommended: CARER-120 or equivalent

This course introduces basic career planning and electronic resources that aid in the research of career and college major options. This course is intended for students who are undecided about their career and/or educational goals. CSU

CARER-140 Job Search Strategies

1 unit P/NP

- 18 hours lecture per term

This course is designed to prepare students for the employment search process. Identification of goals and job skills, how to complete an application, traditional and electronic cover letters and resumes, interviewing techniques, job market research and overview of employee and employer rights will be covered. Students will also identify and discuss the employability skills most commonly sought by employers. CSU

CARER-150 Topics in Careers

.3-4 units SC

- Variable hours

This course is designed to address topics in career and job search related subjects. Specific topics will be announced in the schedule of classes. CSU

CHEMISTRY – CHEM

Joseph Gorga, Dean

Physical Sciences and Engineering Division

Physical Sciences Building, Room 263

Possible career opportunities

Chemists identify and solve problems by applying logic, scientific thinking, and knowledge of natural laws. Chemistry majors work in educational settings and in government, non-profit charities, or research foundations. Chemists work in manufacturing companies, cosmetic companies, environmental assessment firms, medical laboratories, petroleum companies and pharmaceutical companies. They also can become health administrators, and physicians (all specialties). Many careers require more than two years of college study.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

**Certificate of achievement
Chemistry**

Students completing the program will be able to...

- apply the basic concepts of chemistry to predict chemical structure and trends in reactivity.
- analyze and solve quantitative and qualitative problems in chemistry and explain results verbally or in writing.
- integrate chemical principles into reaction mechanisms.
- apply basic laboratory skills and techniques in general and organic chemistry to collect data and synthesize compounds.
- analyze data and evaluate laboratory experimental results.
- maintain a laboratory notebook.

Completion of the chemistry program prepares students for advanced study leading to careers in government, industry, or secondary-school teaching. The program also partially satisfies the entrance requirements for medical and dental schools. Careers include researcher, educator, laboratory technician, or chemical engineer.

This certificate includes the coursework that will prepare students who intend to transfer with a chemistry or related interdisciplinary major to a four-year institution. This certificate includes the General Chemistry and Organic Chemistry sequences.

To earn a certificate of achievement, students must complete the required courses with a "C" grade or higher. Course requirements are typically available in the day and evening for the General Chemistry sequence. For the Organic Chemistry sequence, CHEM 226 is only offered in fall terms, and CHEM 227 is only offered in spring term.

Chemistry

Students who intend to transfer to a four-year program should consult with a counselor regarding course and program requirements.

<i>required courses:</i>	<i>units</i>
CHEM-120 General College Chemistry I.....	5
CHEM-121 General College Chemistry II.....	5
CHEM-226 Organic Chemistry I.....	5
CHEM-227 Organic Chemistry II.....	5

total minimum required units **20**

Students who intend to transfer to a four-year program in chemistry should consult with a counselor regarding mathematics and science requirements listed below.

<i>plus 0-8 units from:</i>	<i>units</i>
PHYS-130 Physics for Scientists and Engineers A: Mechanics and Wave Motion.....	4
PHYS-230 Physics for Scientists and Engineers B: Heat and Electromagnetism.....	4

<i>plus 0-10 units from:</i>	<i>units</i>
MATH-192 Calculus I.....	5
MATH-193 Calculus II.....	5

CHEM-106 Chemistry for Non-Science Majors

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Prerequisite: MATH-090 or MATH-090E or MATH-090SP or one year of high school algebra or equivalent
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: This is not a preparatory course for other chemistry courses

This course is designed to develop scientific literacy for non-science majors and to meet the general education requirement for physical science with laboratory. The course places chemistry concepts in a practical context using qualitative and quantitative examples that are encountered in everyday life. Laboratory exercises include hands-on experiments related to concepts covered in lecture. C-ID CHEM 100, CSU, UC (credit limits may apply to UC - see counselor)

CHEM-107 Integrated Inorganic, Organic, and Biological Chemistry

5 units SC

- 72 hours lecture/54 hours laboratory per term
- Prerequisite: MATH-090 or MATH-090E or MATH-090SP or one year of high school algebra or equivalent
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: This course does not fulfill the prerequisite to CHEM-120.

This course is an intensive survey of the fundamentals of chemistry, which explores and applies the topics of inorganic and organic chemistry to biochemistry. This course satisfies the requirements of nursing and other health-career programs that require one term of chemistry. CSU, UC (credit limits may apply to UC-see counselor)

CHEM-108 Introductory Chemistry

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Prerequisite: MATH-090 or MATH-090E or MATH-090SP or equivalent
- Recommended: Eligibility for ENGL-122 or equivalent

This course is an introduction to the experimental science of chemistry. Using mathematical word problems and chemical terms, the student will have an overview of inorganic chemistry. This course is appropriate for those that have no high school chemistry experience. This course serves as preparation for General Chemistry (CHEM-120/121) or the first course of a two-semester sequence (with CHEM-109) that satisfies the requirements of allied health programs such as nursing and dental hygiene that require one year of chemistry. CSU, UC (credit limits may apply to UC-see counselor)

CHEM-109 Introduction to Organic and Biochemistry

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Prerequisite: CHEM-108 or CHEM-120 or high school chemistry or equivalent

This course provides a focused introduction to the chemistry of living things. Organic Chemistry (the study of carbon compounds) is linked to biochemistry (the chemical basis of life) through the relationship of molecular structure and function. This is the second course of a two-semester sequence (with CHEM-108) that satisfies the requirements of allied health programs such as nursing and dental hygiene that require one year of chemistry. C-ID CHEM 102, CSU, UC (credit limits may apply to UC-see counselor)

CHEM-120 General College Chemistry I

5 units LR

- 54 hours lecture/108 hours laboratory per term
- Prerequisite: CHEM-108 or score of 3, 4 or 5 on AP Chemistry Test or appropriate chemistry skill level demonstrated through Chemistry Diagnostic Test or equivalents; and MATH-120 or 120SP or equivalent
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents an introduction to the fundamentals of chemistry. Atomic theory, chemical reactions, bonding, structure, stoichiometry, gases, solutions, redox, thermochemistry, and chemical kinetics will be covered. C-ID CHEM 110, CHEM-120+121=C-ID CHEM 120S, CSU, UC

CHEM-121 General College Chemistry II

5 units LR

- 54 hours lecture/108 hours laboratory per term
- Prerequisite: CHEM-120 or equivalent

This course is a continuation of CHEM-120. Equilibria including gaseous and acid base equilibria, buffers, titration curves, solubility products, thermodynamics, electrochemistry, coordination complexes, nuclear chemistry, quantitative experiments, and qualitative analysis will be addressed. CHEM-120+121=C-ID CHEM 120S, CSU, UC

CHEM-150 Topics in Chemistry

- .3-4 units SC
 • Variable hours

A supplemental course in Chemistry to provide a study of current concepts and problems in Chemistry. Specific topics will be announced in the schedule of classes. CSU

CHEM-226 Organic Chemistry I

- 5 units LR
 • 54 hours lecture/108 hours laboratory per term
 • Prerequisite: CHEM-121 or equivalent

This course is the first semester of a two-semester sequence (CHEM-226 and CHEM-227) that covers structure and bonding, stereochemistry, conformational analysis, reaction mechanisms, and the nomenclature, physical properties, and reactions of various classes of organic compounds (alkanes, alkenes, alkynes, alkyl halides, alcohols, and ethers). Basic organic laboratory techniques are introduced and used in syntheses or other projects. Chemical safety, information retrieval and good lab practices are emphasized. A variety of laboratory instrumentation skills are developed including data collection and analysis using GC, IR and UV-Visible spectroscopy. C-ID CHEM 150, CHEM-226 + CHEM-227 = C-ID CHEM 160S, CSU, UC

CHEM-227 Organic Chemistry II

- 5 units LR
 • 54 hours lecture/108 hours laboratory per term
 • Prerequisite: CHEM-121 and CHEM-226 or equivalents

This course is a continuation of Chemistry 226. Topics include spectroscopy, additional reaction mechanisms, the nomenclature, physical properties, and reactions of other basic classes of compounds (aromatics, organometallics, aldehydes, ketones, carboxylic acids and their derivatives, and amines). The nature and reactions of multifunctional compounds and the structure and reactions of biochemical molecules (carbohydrates, lipids, amino acids, proteins and nucleic acids) are also discussed. Laboratory work includes hands-on spectroscopic techniques (i.e., NMR, IR), qualitative organic analysis, more advanced projects involving synthesis, and a literature research project using university-level chemical literature resources.

CHEM-226 + CHEM-227 = C-ID 160S, CSU, UC

CHEM-298 Independent Study

- .5-3 units SC
 • Variable hours
 • Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

CHEM-299 Student Instructional Assistant

- .5-3 units SC
 • Variable hours
 • Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

CHINESE – CHIN

Toni Fannin, Dean
 Applied and Fine Arts Division
 Business and Foreign Language Building, Room 204

Possible career opportunities

The study of Chinese can open up opportunities in communications, foreign trade and banking, transportation, government, the Foreign Service, tourism, library services, teaching, professional translating, journalism, and all levels of education, including university teaching. Most foreign language careers require more than two years of study.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

**Associate in arts degree
Mandarin Chinese**

Students completing the program will be able to...

- communicate verbally in the target language with accurate pronunciation in meaningful situations present in both informal and formal contexts.
- effectively apply rules of grammar and syntax in tandem with appropriate vocabulary in written and oral communication.
- demonstrate auditory comprehension of instruction, authentic content, and purposeful conversations in the target language.
- discuss, describe, and infer information from authentic texts in the target language.
- demonstrate cultural appreciation by making (comparative) connections, on both an individual and societal level, between the target cultures and students' own cultures.
- create (write or present) narratives and/or arguments that demonstrate cohesive critical thinking in the target language.

The associate in arts degree in Mandarin Chinese at DVC will provide students with skills in understanding, speaking, reading and writing Mandarin Chinese. The curriculum exposes students to Chinese culture and civilization and provides foundational skills in language that can apply to a broad range of international and domestic career opportunities and professions. The degree will provide lower division preparation for transfer to UC, CSU and other four-year colleges and universities to earn a bachelor's degree.

The DVC Mandarin Chinese major is intended for transfer. Students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to baccalaureate-granting institutions of their choice are met. Students who intend to transfer are advised to select General Education Option 2 (IGETC) or Option 3 (CSU GE). Option 1 (DVC General Education) is appropriate for those students who do not intend to transfer. Students may not take a pass/no pass option for major courses and each of the major requirements must be completed with a "C" grade or higher. Certain courses may satisfy both major and general education requirements; however, the units are counted only once.

Students must complete the 20 units of major requirements, which will provide students with the essential grammar of the language and culture of China.

<i>major requirements:</i>		<i>units</i>
CHIN-120	First Term Chinese	5
CHIN-121	Second Term Chinese	5
CHIN-220	Third Term Chinese	5
CHIN-221	Fourth Term Chinese	5
total minimum units for the major		20

Certificate of achievement Mandarin Chinese

Students completing the program will be able to...

- A. communicate verbally in the target language with accurate pronunciation in meaningful situations present in both informal and formal contexts.
- B. effectively apply rules of grammar and syntax in tandem with appropriate vocabulary in written and oral communication.
- C. demonstrate auditory comprehension of instruction, authentic content, and purposeful conversations in the target language.
- D. discuss, describe, and infer information from authentic texts in the target language.
- E. demonstrate cultural appreciation by making (comparative) connections, on both an individual and societal level, between the target cultures and students' own cultures.
- F. create (write or present) narratives and/or arguments that demonstrate cohesive critical thinking in the target language.

This certificate of achievement was created to give students the opportunity to show potential employers in this country and in other countries that the student has completed a certain number of courses in Chinese and prepares students with an intermediate to advanced knowledge of Chinese and familiarizes them with the culture of China and other Chinese-speaking countries.

This certificate of achievement provides students, prospective employers and others with documented evidence of persistence and academic accomplishment in the language. The certificate requires completion of 15 to 20 units from the following list of courses. Students may not take a credit/no credit option for required courses and each course used to meet a certificate requirement must be completed with a "C" grade or higher.

complete at least 15 units from:

		<i>units</i>
CHIN 120	First Term Mandarin Chinese.....	5
CHIN 121	Second Term Mandarin Chinese	5
CHIN 220	Third Term Mandarin Chinese.....	5
CHIN-221	Fourth Term Mandarin Chinese	5
total minimum required units		15

CHIN-120 First Term Mandarin Chinese

- 5 units SC
- 90 hours lecture per term
- Note: This course is equivalent to two years of high school study.

This beginning Chinese course emphasizes the development of language skills for listening, speaking, reading, and writing. Pronunciation drills, sentence pattern analysis, and character reading and writing will be introduced. Aspects of Chinese culture will be discussed. CSU, UC

CHIN-121 Second Term Mandarin Chinese

- 5 units SC
- 90 hours lecture per term
- Prerequisite: CHIN-120 or two years of high school study or equivalent
- Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.

This is the second course in a sequence of Mandarin Chinese language courses. The course continues skill building in understanding, speaking, reading, and writing of the Mandarin Chinese language. The expansion of vocabulary (characters) and more advanced communicative functions and structures, as well as a deeper examination of the cultures of Mandarin Chinese-speaking countries are emphasized. CSU, UC

CHIN-150 Topics in Chinese

- .3-4 units SC
- Variable hours

A supplemental course in Chinese to provide a study of current concepts and problems in Chinese and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

CHIN-220 Third Term Mandarin Chinese

5 units SC

- 90 hours lecture per term
- Prerequisite: CHIN-121 or three years of high school study or equivalent
- Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.

Students will learn to develop fluency in understanding, speaking, reading and writing Chinese. The uses of the six basic functional components of the Chinese sentence are expanded and new vocabulary and idiomatic expressions are introduced. Selected readings about Chinese culture and literature will be explored. This course is taught entirely in original Chinese characters, and students may use either of the Chinese written systems to develop their knowledge and ability. CSU, UC

CHIN-221 Fourth Term Mandarin Chinese

5 units SC

- 90 hours lecture per term
- Prerequisite: CHIN-220 or four years of high school study or equivalent
- Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.

Students will be able to develop fluency in all aspects of the Chinese language with particular attention to literary forms as reflected in the contemporary Chinese world. This course reviews grammar and develops reading and writing skills in Chinese. Passages from Chinese literature and readings about Chinese culture will be studied. Computer skills in Chinese will be introduced. CSU, UC

CHIN-298 Independent Study

.5-3 units SC

- Variable hours
- Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

CHIN-299 Student Instructional Assistant

.5-3 units SC

- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

COMMUNICATION STUDIES – COMM

Toni Fannin, Dean

Applied and Fine Arts Division

Business and Foreign Language, Room 204

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in arts in communication studies for transfer

Students completing the program will be able to...

- recognize the cultural, ethical, political, psychological and practical aspects of communication systems and models.
- develop and present effective public presentations.
- demonstrate an understanding of the role critical thinking plays in the effective analysis and development of messages.
- demonstrate an understanding of interpersonal communication theory and practice the skills necessary for effective interpersonal interactions.
- improve delivery skills when making public presentations.

The communication studies area views communicative behavior as central to human activity: to individual development, to interpersonal relationships, and to the functioning of political, economic, cultural, and social institutions. In addition, as effective verbal and nonverbal communication is a requirement for most jobs, the program prepares students for a wide variety of professions. Further, the program prepares students for careers in the fields of public relations, communication education, the performing arts, marketing, public relations, sales training and management. Additional careers in fields related to communication studies include salesperson, broadcaster, lawyer, tour guide, political campaign worker, teacher, customer service worker, public and international relations specialist, and negotiator/arbitrator.

The associate in arts in communication studies for transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education pattern (CSU GE); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Some courses in the major satisfy both major and CSUGE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

<i>major requirements:</i>	<i>units</i>
COMM-120 Public Speaking	3

plus at least 6 units from:

COMM-123 Argumentation and Debate	3
COMM-128 Interpersonal Communication	3
COMM-130 Small Group Communication	3

plus at least 6 units from:

any course not used above or:

COMM-121 Persuasion and Critical Thinking	3
COMM-125 Intercultural Communication	3
COMM-148 Performance of Literature	3
COMM-163 Forensics - Speech and Debate	1.5-4
COMM-180 Introduction to Communication Theory	3
JRNAL-110 Mass Media of Communication	3

plus at least 3 units from:

any course not used above, or:

COMM-124 Voice and Diction	3
JRNAL-120 Introduction to Newswriting and Reporting	3
total minimum units for the major	18

Certificate of achievement Communication studies

Students completing the program will be able to...

- A. create and present a well-structured persuasive presentation.
- B. create and present a well-structured informative presentation.
- C. be aware of and able to apply interpersonal conflict resolution methods.

To earn a certificate of achievement in communication studies, students must complete three core courses supplemented by seven restricted electives from which students select a minimum of three units to meet their individual educational and career goals. The certificate program courses also meet some of the requirements of the major for the associate in arts degree in communication studies for transfer at Diablo Valley College.

<i>required courses:</i>	<i>units</i>
COMM-120 Public Speaking	3
COMM-121 Persuasion and Critical Thinking	3
COMM-128 Interpersonal Communication	3

plus at least 3 units from:

COMM-123 Argumentation and Debate	3
COMM-124 Voice and Diction	3
COMM-125 Intercultural Communication	3
COMM-130 Small Group Communication	3
COMM-148 Performance of Literature	3
COMM-155 Topics in Communication Studies	0.3-4
COMM-163 Forensics - Speech and Debate	1.5-4
COMM-180 Introduction to Communication Theory	3
COMM-298 Independent Study	0.5-3
total minimum required units	12

COMM-120 Public Speaking

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

In this course, students will prepare and present public speeches using the principles of effective communication. Emphasis is placed on speaking to inform, persuade, and special occasion speeches. Key principles covered include audience analysis, determining speech goals, organization, clarity, language, evidence, visual aids, and delivery. C-ID COMM 110, CSU, UC

COMM-121 Persuasion and Critical Thinking

- 3 units LR
- 54 hours lecture per term
 - Prerequisite: ENGL-122 or equivalent

This course presents an introduction to the principles of reasoning and their application to the analysis and evaluation of political and marketplace communication. The integration of critical thinking principles with techniques of effective written and spoken argument will be emphasized. Topics will include the structure of argument, underlying assumptions, the quality of evidence used to support claims, the use of language, the discovery of formal and informational fallacies, and the effect of print and electronic media on argumentation. C-ID COMM 190, CSU, UC

COMM-123 Argumentation and Debate

- 3 units LR
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course presents the application of the principles of argumentation theory, including the analysis of propositions, issues, evidence, and reasoning, and applying them through critical thinking skills in debate. Students will participate in graded debates in class. C-ID COMM 120, CSU, UC

COMM-124 Voice and Diction

- 3 units SC
- 54 hours lecture per term
 - Recommendation: Eligibility for ENGL-122 or Equiv.

This course focuses on the improvement of the vocal instrument for the speaker. Drills and exercises will address vocal strength, resonance, inflection, articulation, and quality. This course is intended for the general student, as well as communication, speech and drama majors. CSU, UC

COMM-125 Intercultural Communication

- 3 units SC
- 54 hours lecture per term
 - Recommendation: Eligibility for ENGL-122 or Equivalent

This course is an introduction to intercultural communication in domestic and/or global contexts. The course studies the influence of cultures, languages, and social patterns on how members of groups relate among themselves and with members of different ethnic and cultural groups. It teaches theory and knowledge of effective communication within and between cultures. Appreciation and comparison of communication of diverse groups is an important part of the course. C-ID COMM 150, CSU, UC

COMM-128 Interpersonal Communication

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course provides an introduction to the theory, basic principles, and methods of oral communication, with emphasis on improving speaking and listening skills within the context of interpersonal communication. Psychological, social, cultural, and linguistic factors which affect human interaction are emphasized. Attention will also be given to perception, listening, conflict resolution, relationship development and stages, and verbal and nonverbal communication. C-ID COMM 130, CSU, UC

COMM-130 Small Group Communication

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course is a study of communication theory and research applied to working in small groups. Emphasis will be on individual communication behaviors and group practices that create successful group work. Skill development includes leadership, oral communication and team work. C-ID COMM 140, CSU, UC

COMM-148 Performance of Literature

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course provides an introduction to performance studies. Emphasis is placed on the analysis, appreciation, and application of theories of interpretive performance of various forms of literature including poetry, prose, and drama. C-ID COMM 170, CSU, UC

COMM-155 Topics in Communication Studies

- .3-4 units SC
- Variable hours
 - Recommended: Eligibility for ENGL-122 or equivalent

In this class, students will learn current concepts and problems related to the area of communication studies being focused on. Specific topics will be announced in the schedule of classes. CSU

COMM-163 Forensics - Speech and Debate

- 1.5-4 units SC
- May be repeated three times
 - Variable hours
 - Recommended: Eligibility for ENGL-122 or equivalent

This course prepares students to participate in intercollegiate speech and debate tournaments and/or community events. Students will research, write, and practice speeches. Students will perform speeches at competitive and/or community events. C-ID COMM 160B, CSU, UC

COMM-180 Introduction to Communication Theory

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or Equivalent

This course is a survey of the discipline of communication studies with emphasis on multiple epistemological, theoretical, and methodological issues relevant to the systematic inquiry and pursuit of knowledge about human communication. Students will explore the basic history, assumptions, principles, processes, variables, methods, and specializations of human communication as an academic field of study. C-ID COMM 180, CSU, UC

COMM-298 Independent Study

- .5-3 units SC
- Variable hours
- Note: Submission of acceptable educational contract to department and Instruction Office is required.

Students will conduct additional research, a special project, or learning activities in a specific discipline/subject area. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. (This course is not intended to replace an existing course.) CSU

COMM-299 Student Instructional Assistant

- .5-3 units SC
- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

**Associate in science degree
Computer information systems**

Students completing the program will be able to...

- A. perform the duties of information technologies and management workers as identified by the Bureau of Labor Statistics
- B. provide technical assistance and training to computer system users.
- C. investigate and resolve computer software and hardware problems of users.
- D. perform the professional duties demanded in any modern office environment.
- E. design and maintain static and dynamic web sites.
- F. integrate elements such as graphics, animation and streaming media on web sites.
- G. develop and implement database systems for stand-alone or internet based deployment.
- H. use technology to manage multi-faceted projects.
- I. demonstrate basic graphical user interface operations in a computer environment.
- J. produce spreadsheets, documents and presentations by using basic to advanced software operations.

The computer information systems associate in science program prepares the student for jobs in business and government as information technologies and management workers. Principal areas of study are computer software applications, internet technologies, database systems, project management systems and basic network principles. These CIS courses prepare students for a career path in computer information systems and technologies. These courses teach terminology and provide hands-on laboratory experience with operating and network systems and stand alone and internet based applications.

In order to obtain an associate in science degree, students must complete the courses required for the core certificate of achievement and a minimum of one area of technical specialization, and complete all general education requirements as listed in the Diablo Valley College catalog. To earn a degree, students must complete each course used to meet a major requirement with a "C" grade or higher and maintain an overall GPA of 2.5 or higher in the coursework required for the major. Other electives and course substitutions not listed below are possible with department chairperson approval.

Students are limited to one associate in science degree regardless of the number of specializations completed. Multiple certificates may be awarded.

major requirements: units

core courses:

CIS-115	Microsoft Word - Comprehensive	2
CIS-116	Microsoft Excel - Comprehensive	2
CIS-118	Microsoft PowerPoint - Comprehensive	2

plus at least 2 units from:

CIS-100	Microsoft Windows - Comprehensive	2
CIS-101	Apple Mac Operating System.....	2

COMPUTER INFORMATION SYSTEMS – CIS

Kenyetta Tribble, Senior Dean (Interim)
San Ramon Campus Division
San Ramon Campus

Possible career opportunities

Training in computer information systems prepares students for a broad range of roles. Some possible career options include webmaster, web developer, web designer, executive assistant, office manager, office assistant, entrepreneur, database analyst, database designer, computer trainer, project manager, and team member in a startup.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

plus at least 4 units from:

CIS-117	Microsoft Access - Comprehensive	2
CIS-119	Microsoft Outlook - Comprehensive	2
CIS-170	Networking for Non-IT Professionals.....	2

Core courses units subtotal 12

Choose one of the following four technical specialization areas:

database management - required courses:

CIS-107	Introduction to Web Databases	2
CIS-117	Microsoft Access - Comprehensive	2
CIS-160	Introduction to MySQL.....	2

project management - required courses:

CIS-180	Introduction to Project Management.....	3
CIS-181	Project Management Fundamentals/ PMI PMP Preparation.....	3

project management - recommended electives:

CIS-182	Project Risk Management.....	3
CIS-185	Project Management Tools	2

web graphics - required courses:

CIS-130	Adobe Photoshop Elements	2
CIS-132	Adobe Premiere Elements - Comprehensive....	2
CIS-133	Developing Video Content for the Web	2

web technology - required courses:

CIS-105	Introduction to Web Design	2
CIS-106	Adobe Dreamweaver - Comprehensive.....	2
CIS-107	Introduction to Web Databases	2

web technology - recommended electives:

CIS-108	Introduction to WordPress.....	2
CIS-117	Microsoft Access - Comprehensive	2
CIS-120	iPhone and iPad App Development for Beginners	2
CIS-160	Introduction to MySQL.....	2

total minimum units for the major 18

**Certificate of achievement
Computer information systems - core**

Students completing the program will be able to...

- A. demonstrate basic graphical user interface operations in a computer environment.
- B. produce spreadsheets, documents and presentations by using basic to advanced software operations.

required courses: *units*

CIS-115	Microsoft Word - Comprehensive	2
CIS-116	Microsoft Excel - Comprehensive	2
CIS-118	Microsoft PowerPoint - Comprehensive	2

plus at least 2 units from:

CIS-100	Microsoft Windows - Comprehensive	2
CIS-101	Apple Mac Operating System.....	2

plus at least 4 units from :

CIS-117	Microsoft Access - Comprehensive	2
CIS-119	Microsoft Outlook - Comprehensive	2
CIS-170	Networking for Non-IT Professionals.....	2

total minimum required units 12

**Certificate of achievement
Computer information systems -
database management**

Students completing the program will be able to...

- A. demonstrate basic graphical user interface operations in a computer environment.
- B. produce spreadsheets, documents and presentations by using basic to advanced software operations.
- C. apply database syntax, properties, operators, and functions.

required courses: *units*

CIS-107	Introduction to Web Databases	2
CIS-115	Microsoft Word - Comprehensive	2
CIS-116	Microsoft Excel - Comprehensive	2
CIS-117	Microsoft Access - Comprehensive	2
CIS-118	Microsoft PowerPoint - Comprehensive	2
CIS-119	Microsoft Outlook - Comprehensive	2
CIS-160	Introduction to MySQL.....	2
CIS-170	Networking for Non-IT Professionals	2

plus at least 2 units from:

CIS-100	Microsoft Windows - Comprehensive	2
CIS-101	Apple Mac Operating System.....	2

total minimum required units 18

**Certificate of achievement
Computer information systems -
project management**

Students completing the program will be able to...

- A. demonstrate basic graphical user interface operations in a computer environment.
- B. produce spreadsheets, documents and presentations by using basic to advanced software operations.
- C. apply the principles of the Project Management Institute (PMI) processes of project management.

required courses: *units*

CIS-115	Microsoft Word - Comprehensive	2
CIS-116	Microsoft Excel - Comprehensive	2
CIS-118	Microsoft PowerPoint - Comprehensive	2
CIS-180	Introduction to Project Management.....	3
CIS-181	Project Management Fundamentals/ PMI PMP Preparation.....	3

plus at least 2 units from:

CIS-100	Microsoft Windows - Comprehensive	2
CIS-101	Apple Mac Operating System.....	2

plus at least 4 units from:

CIS-117	Microsoft Access - Comprehensive	2
CIS-119	Microsoft Outlook - Comprehensive	2
CIS-170	Networking for Non-IT Professionals	2

total minimum required units 18

project management - recommended electives:

CIS-182	Project Risk Management.....	3
CIS-185	Project Management Tools	2

**Certificate of achievement
Computer information systems -
web graphics**

Students completing the program will be able to...

- A. demonstrate basic graphical user interface operations in a computer environment.
- B. produce spreadsheets, documents and presentations by using basic to advanced software operations.
- C. perform the duties demanded in any modern office environment.
- D. able to prepare images for sharing and distribution.

<i>required courses:</i>	<i>units</i>
CIS-115 Microsoft Word - Comprehensive	2
CIS-116 Microsoft Excel - Comprehensive	2
CIS-118 Microsoft PowerPoint - Comprehensive	2
CIS-130 Adobe Photoshop Elements	2
CIS-132 Adobe Premiere Elements - Comprehensive	2
CIS-133 Developing Video Content for the Web	2

<i>plus at least 2 units from:</i>	
CIS-100 Microsoft Windows - Comprehensive	2
CIS-101 Apple Mac Operating System.....	2

<i>plus at least 4 units from:</i>	
CIS-117 Microsoft Access - Comprehensive	2
CIS-119 Microsoft Outlook - Comprehensive	2
CIS-170 Networking for Non-IT Professionals	2
total minimum required units	18

**Certificate of achievement
Computer information systems -
web technology**

Students completing the program will be able to...

- A. demonstrate basic graphical user interface operations in a computer environment.
- B. produce spreadsheets, documents and presentations by using basic to advanced software operations.
- C. plan and design web pages.

<i>required courses:</i>	<i>units</i>
CIS-105 Introduction to Web Design	2
CIS-106 Adobe Dreamweaver - Comprehensive.....	2
CIS-107 Introduction to Web Databases.....	2
CIS-115 Microsoft Word - Comprehensive	2
CIS-116 Microsoft Excel - Comprehensive	2
CIS-118 Microsoft PowerPoint - Comprehensive	2

<i>plus at least 2 units from:</i>	
CIS-100 Microsoft Windows - Comprehensive	2
CIS-101 Apple Mac Operating System.....	2

<i>plus at least 4 units from:</i>	
CIS-117 Microsoft Access - Comprehensive	2
CIS-119 Microsoft Outlook - Comprehensive	2
CIS-170 Networking for Non-IT Professionals	2
total minimum required units	18

web technology - recommended electives:	
CIS-108 Introduction to WordPress.....	2
CIS-117 Microsoft Access - Comprehensive	2
CIS-120 iPhone and iPad App Development for Beginners	2
CIS-160 Introduction to MySQL.....	2

**Certificate of accomplishment
Computer information systems -
database management**

Students completing the program will be able to...

- A. demonstrate basic graphical user interface operations in a computer environment.
- B. apply database syntax, properties, operators, and functions.

<i>required courses:</i>	<i>units</i>
CIS-107 Introduction to Web Databases	2
CIS-117 Microsoft Access - Comprehensive	2
CIS-160 Introduction to MySQL.....	2
total minimum required units	6

**Certificate of accomplishment
Computer information systems -
project management**

Students completing the program will be able to...

- A. demonstrate basic graphical user interface operations in a computer environment.
- B. apply the principles of the Project Management Institutes' (PMI) processes of project management.

<i>required courses:</i>	<i>units</i>
CIS-180 Introduction to Project Management.....	3
CIS-181 Project Management Fundamentals/ PMI PMP Preparation.....	3
total minimum required units	6

project management - recommended electives:	
CIS-182 Project Risk Management.....	3
CIS-185 Project Management Tools.....	2

**Certificate of accomplishment
Computer information systems -
web graphics**

Students completing the program will be able to...

- A. demonstrate basic graphical user interface operations in a computer environment.
- B. able to prepare images for sharing and distribution.

<i>required courses:</i>	<i>units</i>
CIS-130 Adobe Photoshop Elements	2
CIS-132 Adobe Premiere Elements - Comprehensive	2
CIS-133 Developing Video Content for the Web	2
total minimum required units	6

**Certificate of accomplishment
Computer information systems -
web technology**

Students completing the program will be able to...

- A. demonstrate basic graphical user interface operations in a computer environment.
- B. plan and design web pages.

required courses: units

CIS-105	Introduction to Web Design	2
CIS-106	Adobe Dreamweaver - Comprehensive.....	2
CIS-107	Introduction to Web Databases.....	2
total minimum required units		6

web technology - recommended electives:

CIS-108	Introduction to WordPress.....	2
CIS-117	Microsoft Access - Comprehensive.....	2
CIS-120	iPhone and iPad App Development for Beginners.....	2
CIS-160	Introduction to MySQL	2

CIS-100 Microsoft Windows - Comprehensive

2 units SC

- 36 hours lecture/18 hours laboratory per term
- Note: Credit by examination option available. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course introduces the functions of the Microsoft Windows Operating System (Win OS), including the graphical user interface, file and folder management, system preferences, and networking. No previous computer experience is required. CSU

CIS-101 Apple Mac Operating System

2 units SC

- 36 hours lecture/18 hours laboratory per term
- Note: Credit by examination option available. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course introduces the functions of the Apple Mac Operating System (OS), including the graphical user interface, file and folder management, system preferences, and networking. No previous computer experience is required. CSU

CIS-105 Introduction to Web Design

2 units SC

- 36 hours lecture/18 hours laboratory per term
- Recommended: CIS-100 or CIS-101 or equivalent
- Note: Credit by examination option available. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course presents fundamentals of the website development cycle. Topics will include basic web design concepts and processes used to design, organize, and maintain basic websites. Emphasis is placed on navigation, organization, presentation, and maintenance of websites. No previous web design experience is required. CSU

CIS-106 Adobe Dreamweaver - Comprehensive

2 units SC

- 36 hours lecture/18 hours laboratory per term
- Recommended: CIS-100 or CIS-101 or equivalent
- Note: Credit by examination option available. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course introduces the web development capabilities of Adobe Dreamweaver. This web authoring program is used for basic and professional web site development. Topics include planning, designing, creating, and troubleshooting web pages using the features of the software. No previous experience with this software is required. CSU

CIS-107 Introduction to Web Databases

2 units SC

- 36 hours lecture/18 hours laboratory per term
- Recommended: CIS-100 or CIS-101 or equivalent
- Note: Credit by examination option available. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course presents the fundamentals of database-driven web page development. Topics will include basic database configuration, the use of server-side tools to connect to a database, and the display and manipulation of database content over the web. CSU

CIS-108 Introduction to WordPress

2 units SC

- 36 hours lecture/18 hours laboratory per term
- Recommended: CIS-100 or CIS-101 or equivalent
- Note: Credit by examination option available. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course introduces students to WordPress. This easy to use software is used to create, organize, and maintain web sites. Emphasis is placed on installation, configuration, navigation, organization, presentation, and maintenance of web sites. No previous web design experience is required. CSU

CIS-115 Microsoft Word - Comprehensive

2 units SC

- 36 hours lecture/18 hours laboratory per term
- Recommended: CIS-100 or CIS-101 or equivalent
- Note: Credit by examination option available. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course presents the comprehensive functions of Microsoft Word, a powerful word processing program which is part of the Microsoft Office Suite. Topics include formatting and editing documents, forms, charts, and diagrams. Material relevant to the Microsoft certification examination will be covered. No previous experience with this software is required. CSU

CIS-116 Microsoft Excel - Comprehensive

2 units SC

- 36 hours lecture/18 hours laboratory per term
- Recommended: CIS-100 or CIS-101 or equivalent
- Note: Credit by examination option available. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course presents the comprehensive functions of Microsoft Excel, a powerful spreadsheet program which is part of the Microsoft Office Suite. Topics include worksheets, charts, formulas, functions, workbooks, and macros. Material relevant to the Microsoft certification examination will be covered. No previous experience with this software is required. CSU

CIS-117 Microsoft Access - Comprehensive

2 units SC

- 36 hours lecture/18 hours laboratory per term
- Recommended: CIS-100 or CIS-101 or equivalent
- Note: Credit by examination option available. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course presents the comprehensive functions of Microsoft Access, a powerful database program which is part of the Microsoft Office Suite. Topics include database design, queries, forms, and reports. Material relevant to the Microsoft certification examination will be covered. No previous experience with this software is required. CSU

CIS-118 Microsoft PowerPoint - Comprehensive

2 units SC

- 36 hours lecture/18 hours laboratory per term
- Recommended: CIS-100 or CIS-101 or equivalent
- Note: Credit by examination option available. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course presents the comprehensive functions of Microsoft PowerPoint, a powerful presentation program which is part of the Microsoft Office Suite. Topics include presentation development, special effects, slide shows, and the use of text, graphics, and multimedia. Material relevant to the Microsoft certification examination will be covered. No previous experience with this software is required. CSU

CIS-119 Microsoft Outlook - Comprehensive

2 units SC

- 36 hours lecture/18 hours laboratory per term
- Recommended: CIS-100 or CIS-101 or equivalent
- Note: Credit by examination option available. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course presents the comprehensive functions of Microsoft Outlook, a powerful email and personal information manager which is part of the Microsoft Office Suite. Topics include managing emails, contacts, calendars, and tasks. Material relevant to the Microsoft certification examination will be covered. No previous experience with this software is required. CSU

CIS-120 iPhone and iPad App Development for Beginners

2 units SC

- 36 hours lecture/18 hours laboratory per term
- Recommended: CIS-100 or CIS-101 or equivalent.
- Note: Credit by examination option available. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course introduces students to application (app) development for iPhone and iPad devices. Essentials of iPhone and iPad app development including tools, frameworks, and concepts are covered. Hands-on exercises will be used to reinforce theory. No previous app development experience is required. Students will learn the essentials of iPhone and iPad app development: the tools, frameworks, and concepts. Hands-on exercises will be part of this course. CSU

CIS-130 Adobe Photoshop Elements

2 units SC

- 36 hours lecture/18 hours laboratory per term
- Recommended: CIS-100 or CIS-101 or equivalent
- Note: Credit by examination option available. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course presents the basics of Adobe Photoshop Elements. Topics include acquiring, organizing, fixing, enhancing, and sharing images. CSU

CIS-132 Adobe Premiere Elements - Comprehensive

2 units SC

- 36 hours lecture/18 hours laboratory per term
- Recommended: CIS-100 or CIS-101 or equivalent
- Note: Credit by examination option available. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course introduces students to Adobe Premiere Elements, a full-featured, video-editing program. This course covers how to turn video clips into a single movie, complete with color correction, effects, audio, and titles. Exporting videos to media and devices or online channels such as Facebook and YouTube will be addressed. CSU

CIS-133 Developing Video Content for the Web

2 units SC

- 36 hours lecture/18 hours laboratory per term
- Recommended: CIS-100 or CIS-101 or equivalent
- Note: Credit by examination option available. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course prepares students to produce digitally formatted videos and prepare them for use on the Internet. Topics include how to import digital video, create screen captures, edit, and produce video for distribution via online and other digital media. CSU

CIS-150 Topics in Computer Information Systems

.3-4 units SC

- Variable hours

A supplemental course in computer information systems to provide a study of current concepts and problems. Specific topics will be announced in the schedule of classes. CSU

CIS-160 Introduction to MySQL

2 units SC

- 36 hours lecture/18 hours laboratory per term
- Recommended: CIS-100 or CIS-101 or equivalent
- Note: Credit by examination option available. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course introduces students to the MySQL database program, which is used to create, organize, and maintain dynamic web sites. Emphasis is placed on table creation, queries, and database management. CSU

CIS-170 Networking for Non-IT Professionals

2 units SC

- 36 hours lecture/18 hours laboratory per term
- Note: Credit by examination option available. No previous networking experience is required. Students interested in professional training in computer networking should see the Computer Network Technology (CNT) programs in this catalog.

This course presents the basics of Small Office/Home Office (SOHO) networking. Topics include Internet connectivity, network design, network software, and network devices, such as hubs, switches, and routers. Emphasis is placed on connectivity, hardware, and implementation specifically designed for small office and home networking environments. CSU

CIS-180 Introduction to Project Management

3 units SC

- 54 hours lecture per term
- Note: Credit by examination option available

This course introduces students to project management; topics include key concepts, terminology, principles, and processes. No previous experience with project management is required. CSU

CIS-181 Project Management/PMI PMP Preparation

3 units SC

- 54 hours lecture per term
- Recommended: CIS-180 or equivalent
- Note: Credit by examination option available

This is an intermediate course on project management and builds on skills acquired in CIS-180. This course provides preparation for the internationally-recognized Project Management Institute (PMI) Project Management Professional (PMP) exam, which certifies skills in project management and product delivery. CSU

CIS-182 Project Risk Management

3 units SC

- 54 hours lecture per term
- Recommended: CIS-180 or equivalent

This course presents an introduction to the risks associated with the management of projects. The skills needed to manage risks associated with projects, deliver projects based on a solid plan and mitigate any risk factors to those projects, will be examined. CSU

CIS-185 Project Management Tools

2 units SC

- 36 hours lecture/18 hours laboratory per term
- Recommended: CIS-100 or CIS-101 or equivalent
- Note: Credit by examination option available. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course introduces students to the software tools, MS Visio and MS Project used in project management. The software is used to create, save, and publish flow charts, diagrams and task lists as well as to set up and assign project resources, track progress on tasks, organize and format project details, and publish project information. No previous experience with the software is required. CSU

COMPUTER NETWORK TECHNOLOGY – CNT

Despina Prapavessi, Dean
Math and Computer Sciences Division
Math Building, Room 267

Possible career opportunities

These CNT-courses prepare students for a career path in computer network technologies. These courses teach terminology and provide hands-on laboratory experience with operating systems and network devices. These courses begin to prepare the student for popular vendor certifications such as MCSE, MCSA, MSDBA, CCNA, CCNP, CCDA, CCDP, and copper/fiber cabling to name a few.

The job titles of people employed in computer networking include: systems administrator, network administrator, network engineer, database administrator, LAN specialist and network designer.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in science degree

Information and communication technology
Students completing the program will be able to...

- A. terminate, install, and test copper and fiber.
- B. troubleshoot wireless access points and connections.
- C. install, configure, and troubleshoot hardware, operating systems, and software applications.
- D. identify computer components to make informed decisions when purchasing computer hardware and software.
- E. apply the fundamentals of good programming structure and good programming practices.
- F. analyze and communicate problem specifications.
- G. build a simple Ethernet network that includes end-devices and intermediary devices.
- H. identify security issues with communications, email, web, remote access, and wireless technology.
- I. differentiate between physical security, disaster recovery, and business continuity.
- J. identify current network threats and ramifications.
- K. troubleshoot threats and implement security methods against such threats.

This two-year associate in science degree program is intended to prepare the student for jobs in business and government as introductory positions such as network control specialist, computer system specialists, or specialist network control, entry-level help desk analyst, computer technician, to name a few. A graduate of this program will be able to sit for the Cisco Certified Network Associate (CCNA) exam, the CompTia A+ exam, the CompTia Net+ exam and other industry recognized exams depending on course selection. A graduate will have the required skills to install and configure local area networks that carry data, voice, and video communications, install, operate and maintain network services, routers, switches, and other network devices, resolve network communication problems, support and troubleshoot Personal Computers (PCs), work with a team and demonstrate desirable customer service and communication skills. NOTE: exact skills will depend on course selection.

DVC information and communication technology students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to four-year institutions of their choice are met. Students who intend to transfer are advised to select either General Education Option 2 (IGETC) or Option 3 (CSU GE). General Education Option 1 (DVC General Education) is appropriate for students who do not intend to transfer.

To earn an associate in science degree with a major in information and communication technology, students must complete each course used to meet a major requirement with a "C" grade or higher and complete general education requirements as listed in the catalog. Degree requirements can be completed by attending classes in the day, the evening, or both. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

<i>major requirements:</i>		<i>units</i>
CNT-103	Voice, Video and Network Cabling.....	2
CNT-104	IT Essentials (A+).....	4
CNT-106	Introduction to Networks.....	3
COMSC-101	Computer Literacy.....	4
COMSC-110	Introduction to Programming.....	4

<i>plus at least 6 units from:</i>		
BUS-250	Business Communications I.....	3
CNT-114	Microsoft Windows Operating System Essentials/Administration.....	3
CNT-120	Routing and Switching Essentials.....	3
CNT-140	Introduction to Information Systems Security.....	4
CNT-148	Introduction to Cybersecurity: Ethical Hacking.....	3
CNT-149	Digital Forensics Fundamentals.....	3

<i>plus at least 3 units from:</i>		
BUS-240	Business Statistics.....	3
MATH-142	Elementary Statistics with Probability.....	4
MATH-144	Statway II.....	4
MATH-181	Finite Mathematics.....	3
MATH-182	Calculus for Management, Life Science and Social Science I.....	4
MATH-191	Pre-Calculus.....	5
MATH-192	Analytic Geometry and Calculus I.....	5

total minimum units for the major 26

Certificate of achievement Information and communication technology Students completing the program will be able to...

- terminate, install, and test copper and fiber.
- troubleshoot wireless access points and connections.
- install, configure, and troubleshoot hardware, operating systems, and software applications.
- identify computer components to make informed decisions when purchasing computer hardware and software.
- apply the fundamentals of good programming structure and good programming practices.
- analyze and communicate problem specifications.
- build a simple Ethernet network that includes end-devices and intermediary devices.
- identify security issues with communications, email, web, remote access, and wireless technology.
- differentiate between physical security, disaster recovery, and business continuity.
- identify current network threats and ramifications.
- troubleshoot threats and implement security methods against such threats.

This certificate of achievement program is intended to prepare the student for jobs in business and government as introductory positions such as network control specialist, computer system specialists, or specialist network control, entry-level help desk Analyst, computer technician, to name a few. A graduate of this program will be able to sit for the Cisco Certified Network Associate (CCNA) exam, the CompTia A+ exam, the CompTia Net+ exam and other industry recognized exams depending on course selection. A graduate will have the required skills to install and configure local area networks that carry data, voice, and video communications, install, operate and maintain network services, routers, switches, and other network devices, resolve network communication problems, support and troubleshoot Personal Computers (PCs), work with a team and demonstrate desirable customer service and communication skills. NOTE: exact skills will depend on course selection.

To earn a certificate of achievement in information and communication technology, students must complete each course used to meet a major requirement with a "C" grade or higher. Certificate requirements can be completed by attending classes in the day, evening, online, or a combination of those.

<i>major requirements:</i>		<i>units</i>
CNT-103	Voice, Video and Network Cabling.....	2
CNT-104	IT Essentials (A+).....	4
CNT-106	Introduction to Networks.....	3
COMSC-101	Computer Literacy.....	4
COMSC-110	Introduction to Programming.....	4

<i>plus at least 6 units from:</i>		
BUS-250	Business Communications I.....	3
CNT-114	Microsoft Windows Operating System Essentials/Administration.....	3
CNT-120	Routing and Switching Essentials.....	3
CNT-140	Introduction to Information Systems Security.....	4
CNT-148	Introduction to Cybersecurity: Ethical Hacking.....	3
CNT-149	Digital Forensics Fundamentals.....	3

plus at least 3 units from:

BUS-240	Business Statistics.....	3
MATH-142	Elementary Statistics with Probability.....	4
MATH-144	Statway II.....	4
MATH-181	Finite Mathematics.....	3
MATH-182	Calculus for Management, Life Science and Social Science I.....	4
MATH-191	Pre-Calculus.....	5
MATH-192	Analytic Geometry and Calculus I.....	5

total minimum required units 26

**Certificate of achievement
Network cybersecurity**

Students completing the program will be able to...

- A. identify computer components to make informed decisions when purchasing computer hardware and software.
- B. build a simple Ethernet network that includes end-deices and intermediary devices.
- C. identify and implement safeguards against common attacks.
- D. identify security issues with communications, email, web, remote access, and wireless technology.
- E. differentiate between physical security, disaster recovery, and business continuity.
- F. demonstrate appropriate and ethical behavior and good work habits.
- G. identify current network threats and ramifications.
- H. troubleshoot threats and implement security methods against such threats.

This program prepares students for a variety of entry-level positions in IT network security and cybersecurity. This program builds on the foundation obtained after completing the Network technology fundamentals certificate of achievement. A student completing this program can apply for jobs such as Computer Network Support Specialist, Computer Network Defense Analysis, Computer Network Defense Infrastructure Support, network Services, Penetration Tester, Systems Security Analyst; to name a few. To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher.

<i>required courses:</i>		<i>units</i>
CNT-106	Introduction to Networks	3
CNT-120	Routing and Switching Essentials	3
CNT-140	Introduction to Information Systems Security	4
CNT-146	Cisco Certified Network Associate (CCNA) Security	2
CNT-148	Introduction to Cybersecurity: Ethical Hacking	3
CNT-149	Digital Forensics Fundamentals	3
total minimum required units.....		19

**Certificate of achievement
Network technology fundamentals**

Students completing the program will be able to...

- A. terminate, install, and test copper and fiber.
- B. troubleshoot wireless access points and connections.
- C. install, configure, and troubleshoot hardware, operating systems, and software applications.
- D. identify computer components to make informed decisions when purchasing computer hardware and software.
- E. build a simple ethernet network that includes end-devices and intermediary devices.

This program prepares students for a variety of entry level positions in IT networking and the beginning foundation for a student wanting to pursue a career in cyber defense, network forensics, network security and eventually cyber security. To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher.

<i>required courses:</i>		<i>units</i>
CNT-103	Voice, Video and Network Cabling	2
CNT-104	IT Essentials (A+).....	4
CNT-106	Introduction to Networks	3
CNT-114	Microsoft Windows Operating System Essentials/Administration	3
CNT-120	Routing and Switching Essentials	3
COMSC-101	Computer Literacy	4

total minimum required units..... 19

CNT-103 Voice, Video and Network Cabling

2 units LR

- 27 hours lecture/27 hours laboratory per term

This course presents the practical aspects of design, installation, testing, and troubleshooting cable carrying voice, data, video, and wireless signals. Successful completion of this course makes a student eligible to sit for the Fiber Optics Association (FOA) certification examination. CSU

CNT-104 IT Essentials (A+)

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Recommended: COMSC-101 or equivalent
- Note: Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course provides an introduction to the computer hardware and software skills needed to help meet the growing demand for entry-level IT professionals. The fundamentals of computer hardware and software as well as advanced concepts such as security, networking, and the responsibilities of an IT professional will be introduced. Preparation for CompTIA's A+ certification exam is provided. CSU

CNT-106 Introduction to Networks

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Recommended: COMSC-101 or equivalent
- Note: Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.
- Formerly CNT-105

This course introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The course uses the OSI and TCP layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. Students build simple LAN topologies by applying basic principles of cabling; performing basic configurations of network devices, including routers and switches; and implementing IP addressing schemes. This course is preparation for the CompTIA Network +, Cisco Certified Entry-Level Network Technician (CCENT) and Cisco Certified Network Associate (CCNA) certification exams. CSU

CNT-114 Microsoft Windows Operating System Essentials/Administration

3 units SC

- 45 hours lecture/27 hours laboratory per term
- Recommended: CNT-106 or equivalent; COMSC-101 or equivalent

This course is an introduction to Microsoft Windows server operating system and network support. Topics include user accounts, groups and group scopes, permissions, security, Active Directory terminology, optimizing Internet Protocol (IP) address allocation, utilities, and Web Services. CSU

CNT-116 Implementing Windows Server Enterprise

3 units LR

- 45 hours lecture/27 hours laboratory per term
- Recommended: CNT-114 or equivalent
- Note: Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course introduces students to the installation and configuration of Microsoft Windows Professional on stand-alone computers and on client computers connected to a workgroup or domain. The skills and knowledge necessary to install and configure Windows Server, to create files, print, and Terminal Servers will be covered. Students will also administer an organizational unit within a single domain structure. CSU

CNT-117 Implementing Microsoft Windows Directory Services

3 units LR

- 45 hours lecture/27 hours laboratory per term
- Recommended: CNT-116 or equivalent
- Note: Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course presents an overview of installation, configuration, and administration of Microsoft Windows Active directory services. The course focuses on implementing Group Policy and understanding the Group Policy tasks required to centrally manage users and computers. Through lecture and laboratory experiences students will use Group Policies to configure and manage the user desktop environment, to configure and manage software, and implement and manage security settings. Students will also install and manage Windows Domains, and Domain Controllers through Active Directory. CSU

CNT-120 Routing and Switching Essentials

3 units LR

- 36 hours lecture/54 hours laboratory per term
- Prerequisite: CNT-106 or equivalent
- Note: Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.
- Formerly CNT-161

This course presents the architecture, components, and operations of routers and switches in a small network. Students will configure routers and switches for basic functionality. Students will configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. This course is preparation for the Cisco Certified Entry-Level Network Technician (CCENT) and Cisco Certified Network Associate (CCNA) certification exams. CSU

CNT-125 Introduction to Virtualization Technology

3 units LR

- 45 hours lecture/27 hours laboratory per term
- Recommended: CNT-118 or equivalent
- Note: Students may petition to repeat when software and networking technologies are upgraded. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course presents an overview of the installation and configuration of both Microsoft and VMWare Virtualization Technologies. Topics include storage systems, business continuity, storage security and management, virtualization technology and concepts. Deployment and administration of various operating systems, Hyper-V, Virtual machine networks will also be covered. CSU

CNT-140 Introduction to Information Systems Security

- 4 units SC
- 54 hours lecture/54 hours laboratory per term
 - Recommended: CNT-106 or equivalent; CNT-120 or equivalent
 - Note: Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course provides an introduction to the fundamental principles and topics of information technology security and risk management at the organizational level. Hardware, software, processes, communications, applications, and policies and procedures with respect to organizational cybersecurity and risk management are addressed. Preparation for the CompTIA Security+ certification exams is provided. CSU

CNT-146 Cisco Certified Network Associate (CCNA) Security

- 2 units SC
- 27 hours lecture/27 hours laboratory per term
 - Recommended: CNT-140 or equivalent
 - Note: Students may petition to repeat this course when software, hardware or certification requirements change. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course presents an in-depth study of network security principles as well as the tools and configurations required to secure a network focused specifically on preparation for the CCNA-Security certification exam. CSU

CNT-148 Introduction to Cybersecurity: Ethical Hacking

- 3 units LR
- 36 hours lecture/54 hours laboratory per term
 - Recommended: CNT-114 and CNT-146 or equivalents
 - Note: Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course is intended to prepare students for the following certifications: AccessData Certified Examiner credential, Certified Information Systems Security Professional (CISSP), Cisco Certified Security Professional (CCSP), Security+, and Microsoft Security Certification. Students will analyze computers and networks for vulnerabilities, collect data, and preserve information for forensic investigation. Laws pertaining to computer and network forensic investigation will be presented and students will complete case studies on cyber attack investigations. CSU

CNT-149 Digital Forensics Fundamentals

- 3 units SC
- 36 hours lecture/54 hours laboratory per term
 - Prerequisite: CNT-140 or equivalent
 - Note: Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course introduces the methods used to properly conduct a computer forensics investigation. Topics include ethics, objectives of the International Association of Computer Investigative Specialists (IACIS) certification, computer forensics as a profession, the computer investigation process, operating systems boot processes and disk structures, data acquisition and analysis, technical writing, and computer forensics tools. CSU

CNT-150 Topics in Computer Networking

- .3-4 units SC
- Variable hours

A supplemental course in computer networking to provide a study of current concepts and problems in networking. Specific topics will be announced in the schedule of classes. CSU

CNT-206 Scaling Networks

- 3 units LR
- 36 hours lecture/54 hours laboratory per term
 - Prerequisite: CNT 106 or equiv.

This course is the third in a four-course sequence that prepares students for CCNA routing and switching certification. Topics include routing, switching, network applications, protocols, and services. Hierarchical network design model, EtherChannel, OSPF and EIGRP routing protocols, and maintenance of up-to-date IOS images will also be covered. Students will practice on laboratory equipment as well as Cisco Packet Tracer, a network configuration simulation tool. CSU

CNT-220 Connecting Networks

- 3 units LR
- 36 hours lecture/54 hours laboratory per term
 - Prerequisite: CNT 106 or equivalent

This is the fourth course in the four-course sequence that prepares students for CCNA routing and switching certification. Topics include WAN technologies such as PPP, HLDC, and PPPoE as well as a systematic approach to implementing and troubleshooting security in addition to network traffic monitoring. Students will practice on laboratory equipment as well as Cisco Packet Tracer, a network configuration simulation tool. CSU

CNT-296 Internship in Occupational Work Experience Education in CNT

1-4 units SC

- *Variable hours*
- *Note: In order to enroll in the CNT-296 course, students must be interning or volunteering, register for the course, complete an online Employment Form, and participate in an orientation. The Employment Form can be accessed at www.dvc.edu/wrnx. Incomplete grades are not awarded for this course.*

CNT-296 is a supervised internship in a skilled or professional level assignment in the student's major field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Internships may be paid, non-paid, or some partial compensation provided. Five hours work per week or seventy-five hours work per term is equal to one unit (paid) or one unit for four hours work per week or sixty hours per term (unpaid work). Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

COMPUTER SCIENCE – COMSC

Despina Prapavessi, Dean
Math and Computer Science Division
Math Building, Room 267

The computer science department offers courses in three general areas, each targeted to serve students with specific needs:

1. General education students seeking a computer literacy course that will transfer to both CSU and UC campuses and/or provide hands-on instruction in the use of personal computer for classroom and research needs (COMSC-101)
 2. Computer science transfer students planning to major in computer science or computer engineering at a four-year school (COMSC-110, 165, 200, 210, 255, 260)
 3. Information systems (programming) professionals who are seeking to update their skills, (COMSC-120, 171, 172, 255, 256, 257)
-

Possible career opportunities

Study in computer science prepares students for careers in programming, computer operations, systems analysis and engineering, and web design, as well as artificial intelligence, robotics, and software engineering and development. Some career options require more than two years of college study.

Besides offering courses designed to meet lower-division requirements for a major in computer science, there is also a wide variety of courses covering current popular topics and new software development tools and languages. Such courses provide a path for working professionals to upgrade their skill-set and keep abreast with current technology.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in science degree Computer science

Students completing the program will be able to...

- A. create computer programming solutions using either the C++ or Java programming language.
- B. read and write programs written in x86 assembly language, and interface them with C++ programs.
- C. effectively use either the C++ Standard Template Library or the Java util package to manage data structures in programs.
- D. make the right choices of language, platform, data structures, and databases for a computer programming solution based on their knowledge of the elements of program design.

The associate in science in computer science is designed as a two-year curricular pathway that offers students a broad general education while integrating an in-depth study of computer science. Students will be prepared to assume entry-level positions in business and industry. Many of the courses are also applicable toward advanced levels of study. Students who intend to transfer to a four-year program in computer science should consult with a counselor regarding other mathematics and science requirements. To earn a degree, students must complete each course used to meet a major requirement with a "C" grade or higher, and complete all general education requirements as listed in the catalog. Certain courses may satisfy both major and other general education requirements; however the units are only counted once.

<i>major requirements:</i>	<i>units</i>
COMSC-110 Introduction to Programming.....	4
COMSC-165 Advanced Programming with C and C++.....	4
COMSC-210 Program Design and Data Structures	4
COMSC-260 Assembly Language Programming/ Computer Organization.....	4

plus at least 4 units from:

COMSC-200 Object Oriented Programming C++.....	4
COMSC-256 Advanced Java Programming.....	4

plus at 0-5 units from:

MATH-192 Analytic Geometry and Calculus I	5
MATH-193 Analytic Geometry and Calculus II	5
MATH-195 Discrete Mathematics.....	4

plus 0-8 units from:

PHYS-130 Physics for Engineers and Scientists A: Mechanics and Wave Motion.....	4
PHYS-230 Physics for Engineers and Scientists B: Heat and Electro-Magnetism.....	4

total minimum units for the major 20

**Certificate of achievement
Computer science -
Advanced C++ programming**

Students completing the program will be able to...

- A. create computer programming solutions using C++ and OOP.
- B. effectively apply inheritance and polymorphism in C++ class design.
- C. “overload” common C++ operators for objects.

This program prepares students for a variety of programming positions and is especially suitable for students who have four-year degrees. To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a “C” grade or higher.

<i>required courses:</i>	<i>units</i>
COMSC-110 Introduction to Programming	4
COMSC-165 Advanced Programming with C and C++	4
COMSC-200 Object Oriented Programming C++.....	4
total minimum required units	12

**Certificate of achievement
Computer science -
Advanced Java programming**

Students completing the program will be able to...

- A. create computer programming solutions using Java and GUI.
- B. write multithreaded Java programs.

This program prepares students for a variety of programming positions and is especially suitable for students who have four-year degrees. To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a “C” grade or higher.

<i>required courses:</i>	<i>units</i>
COMSC-110 Introduction to Programming	4
COMSC-255 Programming with Java	4
COMSC-256 Advanced Java Programming	4
total minimum required units	12

**Certificate of achievement
Computer science -
Computer architecture**

Students completing the program will be able to...

- A. create computer programming solutions using C++.
- B. read and write programs written in x86 assembly language, and interface them with C++ programs.

This program prepares students for a variety of programming positions and is especially suitable for students who have four-year degrees. To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a “C” grade or higher.

<i>required courses:</i>	<i>units</i>
COMSC-110 Introduction to Programming.....	4
COMSC-165 Advanced Programming with C and C++	4
COMSC-260 Assembly Language Programming/ Computer Organization	4
total minimum required units	12

**Certificate of achievement
Computer science -
Mobile and enterprise Java programming**

Students completing the program will be able to...

- A. create networked computer programming solutions using Java.
- B. write Java programs involving sockets for TCP/IP network communications.
- C. write Java programs involving Enterprise Java Beans.

This program prepares students for a variety of programming positions and is especially suitable for students who have four-year degrees. To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a “C” grade or higher.

<i>required courses:</i>	<i>units</i>
COMSC-110 Introduction to Programming.....	4
COMSC-255 Programming with Java	4
COMSC-257 Mobile and Enterprise Java Programming	4
total minimum required units	12

**Certificate of achievement
Computer science -
Program design**

Students completing the program will be able to...

- A. create computer programming solutions using C++ and the STL.
- B. write custom C++ template classes to create and manage data structures.
- C. evaluate algorithmic efficiency and express in “big oh”.

This program prepares students for a variety of programming positions and is especially suitable for students who have four-year degrees. To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a “C” grade or higher.

<i>required courses:</i>	<i>units</i>
COMSC-110 Introduction to Programming.....	4
COMSC-165 Advanced Programming with C and C++	4
COMSC-210 Program Design and Data Structures	4
total minimum required units	12

COMSC-101 Computer Literacy

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Formerly COMSC-100 and COMSC-100L combined

This introductory course in computer literacy covers the basics of computer hardware, software, and networking. Topics include local and cloud-based file management, productivity software for word processing, spreadsheets, databases, presentations, and home networks. An introduction to computer programming is also presented. CSU, UC

COMSC-110 Introduction to Programming

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Prerequisite: Placement through the assessment process or MATH-090 or MATH-090SP or MATH-090E or equivalent
- Recommended: COMSC-101 or equivalent
- Note: See schedule of classes for programming language presented. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course introduces students to programming concepts emphasizing modular design and development of programs, coding style, documentation, debugging and testing. All control structures and data types of a commonly used language are covered. C-ID COMP-112. CSU, UC

COMSC-120 SQL Programming

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Recommended: COMSC-110 or ENGIN-135 or equivalent
- Note: Refer to class schedule for specific Oracle and SQLServer versions. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree..

This course presents the creation and maintenance of databases and tables as well as the storage, retrieval and manipulation of data. Topics include both Oracle and Microsoft SQLServer. Structured Query Language (SQL) script that is common to both and product-specific variations are also covered. CSU

COMSC-150 Topics in Computer Science

.3-4 units SC

- Variable hours
- Note: Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

A supplemental course in computer science to provide a study of current concepts and problems. Specific topics will be announced in the schedule of classes. CSU

COMSC-165 Advanced Programming with C and C++

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Prerequisite: COMSC-110 or ENGIN-135 or equivalent

The course emphasizes programming techniques using C and C++ languages. The syntax of C will be reviewed, then advanced topics such as string processing, pointers, links lists, queues, stacks, and dynamic memory allocation will be covered. C-ID COMP 122. CSU, UC

COMSC-171 Introduction to UNIX and Linux

2 units SC

- 27 hours lecture/27 hours laboratory per term

This is an introductory course in UNIX and Linux operating systems. This course covers scripting and the shell, access control, controlling processes, booting and shutting down, permissions, filesystems, utility programs, editors, usage of network services, storage, AWK scripting, and X Window graphics. CSU, UC

COMSC-172 UNIX and Linux Administration

2 units SC

- 27 hours lecture/27 hours laboratory per term
- Recommended: COMSC-171 or equivalent

This course presents the installation, configuration, and maintenance of UNIX or Linux systems. Topics include installation, booting, user management, hardware configuration, backup, package management, Transmission Control Protocol/Internet Protocol (TCP/IP) configuration, Dynamic Host Control Protocol (DHCP) servers configuration, Domain Name Server (DNS) server configuration, file server configuration, web server configuration, routing, packet filtering, and security. Course content will apply to all UNIX and Linux flavors. CSU

COMSC-200 Object Oriented Programming C++

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Prerequisite: COMSC-165 or equivalent

This course presents the concepts and syntax of the C++ Language. Topics include inheritance, overloaded operators, overloaded default operators, virtual functions, memory management, and templates. CSU, UC

COMSC-210 Program Design and Data Structures

4 units LR

- 54 hours lecture/54 hours laboratory per term
- Prerequisite: COMSC-165 or equivalent
- Recommended: COMSC-200 or equivalent

This course presents techniques relevant to program design and selection of data structures for larger programs. Topics include design techniques, effective use of recursion, algorithmic efficiency and O-notation, linked lists, binary trees, B-trees, graphs, sorting and searching techniques. Extensive programming of a variety of data structures is practiced. C-ID COMP 132, CSU, UC

COMSC-255 Programming with Java

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Recommended: COMSC-110 or equivalent

This course emphasizes programming techniques using the Java programming language. The syntax and deployment of Java applications are reviewed. Advanced topics such as objects, classes, methods, Object Oriented Programming (OOP) principles, Graphical User Interface (GUI), Input/Output (I/O), data structures, applets, networking, and threads are covered. CSU, UC

COMSC-256 Advanced Java Programming

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Recommended: COMSC-255 or equivalent

This course covers advanced topics in Java programming including multithreading, exception handling, serialization, reflection, model view controller architecture, java beans, servlets and database connectivity. CSU, UC

COMSC-257 Mobile and Enterprise Java Programming

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Recommended: COMSC-255 or equivalent

The course introduces Mobile and Enterprise programming concepts using the Java programming language. The Mobile programming topics include activities, services, broadcast receivers, content providers, telephony, text messaging and location services. The Enterprise programming concepts include Enterprise Java Beans (EJB's), session beans, entity beans, message driven beans, and Java Naming and Directory Services (JNDI). CSU

COMSC-260 Assembly Language Programming/Computer Organization

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Prerequisite: COMSC-165 or equivalent

This course covers the basics of machine architecture, machine language, assembly language, operating system interface, and interfacing with high level languages. Topics include data representation, instruction representation and execution, addressing, indexing, macros, subroutine linkages, storage and time efficiency issues, interrupt descriptor tables, virtual memory, cache memory, and dynamic address translation. C-ID COMP 142. CSU, UC

COMSC-275 Introduction to Web Programming Using PHP and JavaScript

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Recommended: COMSC-110 or equivalent

This is an introductory course that presents the basic concepts and applications of web programming. The course uses the JavaScript on the client side and PHP (Hypertext Preprocessor) on the server side and introduces the PHP language and covers the basics of the JavaScript language. HTML (Hyper Text Markup Language) and CSS (Cascading Style Sheets) are also reviewed. CSU

COMSC-276 Intermediate Web Programming Using PHP and MySQL

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Recommended: COMSC-275 or equivalent

This course presents the basic concepts and applications of server side web programming. PHP (Hypertext Preprocessor) is used as the server side programming language and MySQL as the database language. PHP language constructs are used to interface with the database. CSU

COMSC-277 Advanced Web Programming Using PHP

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Recommended: COMSC-275 or equivalent

This is an advanced web programming course that presents advanced concepts and application of both client and server side programming. The JavaScript language as the client side and PHP (Hypertext Preprocessor) as the server side programming language and MySQL as the database will be used. CSU

COMSC-295 Occupational Work Experience Education in COMSC

1-4 units SC

- *May be repeated three times*
- *Variable hours*
- *Note: In order to enroll in COMSC-295, students must be employed, register for the course, complete an online Employment Form, and participate in an orientation. Employment Form can be accessed at www.dvc.edu/wrxx. Incomplete grades are not awarded for this course.*

COMSC-295 is supervised employment that extends classroom learning to the job site and relates to the student's chosen field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Five hours work per week or seventy-five hours work per term is equal to one unit. Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

COMSC-296 Internship in Occupational Work Experience Education in COMSC

1-4 units SC

- *May be repeated three times*
- *Variable hours*
- *Note: In order to enroll in the COMSC-296 course, students must be interning or volunteering, register for the course, complete an online Employment Form, and participate in an orientation. The Employment Form can be accessed at www.dvc.edu/wrxx. Incomplete grades are not awarded for this course.*

COMSC-296 is a supervised internship in a skilled or professional level assignment in the student's major field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Internships may be paid, non-paid, or some partial compensation provided. Five hours work per week or seventy-five hours work per term is equal to one unit (paid) or one unit for four hours work per week or sixty hours per term (unpaid work). Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

CONSTRUCTION – CONST

Joseph Gorga, Dean

Physical Sciences and Engineering Division

Physical Sciences Building, Room 263

Possible career opportunities

Students completing a certificate in construction are qualified for positions in middle management in the building and construction inspection field, and in supervision for the construction industry.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in science degree

Construction -

Construction and building inspection specialization

Students completing the program will be able to...

- interpret the codes related to the construction industry.
- identify code-compliant construction in buildings.
- identify types of zoning used in a jurisdiction.
- write knowledgeable correction notices.
- apply construction terminology.
- identify the effects of various governmental agencies involved in the construction industry on a construction project.
- interpret blueprints and specifications.

Upon successful completion of the construction and building specialization, the student will have the necessary knowledge and skills for a career in building or construction inspection in the construction industry. This program is also valuable for those already employed in the field who wish to upgrade their skills.

To earn an associate in science degree with a major in construction, students must complete each course used to meet a major requirement with a "C" grade or higher and complete all DVC general education requirements as listed in the catalog. A student is eligible for graduation with an associate in science degree after the satisfactory completion of one of three areas of specialization, general education requirements and degree-applicable elective coursework for a total of 60 units. Degree requirements can be completed by attending classes in the day, the evening, or both. Certain courses may satisfy both major and other general education requirements; however, the units are only counted once.

General Education Option 1 (DVC General Education) is appropriate for students who do not intend to transfer. DVC construction students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to four-year institutions of their choice are met. Students who intend to transfer are advised to select either General Education Option 2 (IGETC) or Option 3 (CSU GE).

Construction

Students are limited to one associate in science degree in construction regardless of the number of specializations completed. Multiple certificates of achievement may be awarded.

<i>major requirements:</i>		<i>units</i>
CONST-114	Print Reading.....	3
CONST-124	Construction Details and Specifications.....	3
CONST-170	Fundamentals of Building Inspection.....	3
CONST-181	Building Code Interpretation: Non-Structural	3
CONST-182	Building Code Interpretation: Structural.....	3
CONST-183	Title 24: Energy Conservation Codes	3
CONST-191	Plumbing Code Interpretation	3
CONST-192	Mechanical Code Interpretation	3
CONST-266	Electrical Codes: Articles 90-398.....	3
CONST-267	Electrical Codes: Articles 400-830.....	3
CONST-273	Construction Management.....	3
total minimum units for the major		33

Associate in science degree Construction - Construction and supervision and superintendency specialization

Students completing the program will be able to...

- A. estimate materials cost (quantity survey).
- B. apply construction terminology.
- C. schedule sequences of construction projects.
- D. identify the effects of various governmental agencies involved in the construction industry on a construction project.
- E. interpret blueprints and specifications.
- F. utilize instruments used in surveying.

Upon successful completion of the construction and supervision and superintendency specialization, the student will have the necessary knowledge and skills for a career in building or construction inspection, or for supervision responsibilities in the construction industry. This program is also valuable for those already employed in the field who wish to upgrade their skills.

To earn an associate in science degree with a major in construction, students must complete each course used to meet a major requirement with a "C" grade or higher and complete all DVC general education requirements as listed in the catalog. A student is eligible for graduation with an associate in science degree after the satisfactory completion of one of three areas of specialization, general education requirements and degree-applicable elective coursework for a total of 60 units. Degree requirements can be completed by attending classes in the day, the evening, or both. Certain courses may satisfy both major and other general education requirements; however, the units are only counted once.

General Education Option 1 (DVC General Education) is appropriate for students who do not intend to transfer. DVC construction students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to four-year institutions of their choice are met. Students who intend to transfer are advised to select either General Education Option 2 (IGETC) or Option 3 (CSU GE).

Students are limited to one associate in science degree in construction regardless of the number of specializations completed. Multiple certificates of achievement may be awarded.

<i>major requirements:</i>		<i>units</i>
BUS-101	Business English	3
BUSMG-120	Introduction to Management Studies.....	3
BUSMG-121	Practices and Concepts of Supervision.....	3
CONST-114	Print Reading.....	3
CONST-116	Plane Surveying.....	4
CONST-124	Construction Details and Specifications.....	3
CONST-244	Estimating: Residential	3
CONST-245	Estimating: Commercial.....	3
CONST-273	Construction Management	3
CONST-276	Legal Aspects of the Construction Industry.....	3

plus at least 3 units from:

CONST-110	Occupational Safety.....	2
CONST-136	Construction Processes: Commercial.....	4
CONST-181	Building Code Interpretation: Non-Structural.....	3
CONST-295	Occupational Work Experience Education in CONST	1-4
total minimum units for the major		34

Associate in science degree Construction - Construction management specialization

Students completing the program will be able to...

- A. estimate materials cost (quantity survey).
- B. apply construction terminology.
- C. schedule sequences of construction projects.
- D. identify the effects of various governmental agencies involved in the construction industry on a construction project.
- E. interpret blueprints and specifications.

Upon successful completion of the construction management specialization, the student will have the necessary knowledge and skills for a career in building or construction inspection, or for supervision responsibilities in the construction industry. This program is also valuable for those already employed in the field who wish to upgrade their skills.

To earn an associate in science degree with a major in construction, students must complete each course used to meet a major requirement with a "C" grade or higher and complete all DVC general education requirements as listed in the catalog. A student is eligible for graduation with an associate in science degree after the satisfactory completion of one of three areas of specialization, general education requirements and degree-applicable elective coursework for a total of 60 units. Degree requirements can be completed by attending classes in the day, the evening, or both. Certain courses may satisfy both major and other general education requirements; however, the units are only counted once.

General Education Option 1 (DVC General Education) is appropriate for students who do not intend to transfer. DVC construction students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to four-year institutions of their choice are met. Students who intend to transfer are advised to select either General Education Option 2 (IGETC) or Option 3 (CSU GE).

Students are limited to one associate in science degree in construction regardless of the number of specializations completed. Multiple certificates of achievement may be awarded.

<i>major requirements:</i>		<i>units</i>
ARCHI-244	Architectural Practice and Working Drawings I.....	3
BUS-101	Business English.....	3
COMSC-101	Computer Literacy.....	4
CONST-135	Construction Processes: Residential.....	4
CONST-136	Construction Processes: Commercial.....	4
CONST-144	Materials of Construction.....	3
CONST-244	Estimating: Residential.....	3
CONST-273	Construction Management.....	3
CONST-276	Legal Aspects of the Construction Industry.....	3
MATH-120	Intermediate Algebra.....	5
PHYS-110	Elementary Physics.....	3
total minimum units for the major		38

**Associate in science degree
Pre-apprenticeship**

Students completing the program will be able to...

- A. interpret blueprints and specifications.
- B. apply construction terminology.
- C. use currently available basic personal protective equipment and be able to select appropriate equipment for a given environment.
- D. identify the most common sources of occupational injury and death.
- E. apply principles of job site safety.
- F. practice professional behavior on the construction site.
- G. demonstrate a clear understanding of many trades, interactions, interdependencies, and how the basic construction process flows from one trade to another.

This program prepares students for entry-level jobs in the building trades and/or entry into apprenticeship programs. Program content includes introduction to construction processes, occupational health and safety principles, and blueprint reading. In addition, the program provides contextualized math and English, physical education, a survey of trades, and college and workplace successes.

Upon completion of the program students will be able to directly enter the Northern California Laborers' union, enter the Carpenters Training Committee for Northern California pre-apprenticeship program, or apply to a variety of apprenticeship programs, government agencies, and private-sector employers.

The associate in science degree requires eighteen units in the major, a minimum of units of general education units, and 18.5 elective units from a selection of degree applicable units. The certificate program courses also meet some of the requirements of other construction degrees and certificates. Students must complete each course used to meet a major requirement with a "C" grade or higher and maintain an overall GPA of 2.5 or higher in the coursework required for the major. Students are advised that if they have previously completely equivalent or higher level English and/or math courses, these may be substituted for the requirements of the certificate of achievement. Many trades require documentation of at least one year of high school or one term of college algebra and higher levels of English and mathematics are highly recommended.

<i>major requirements:</i>		<i>units</i>
CARER-140	Job Search Strategies.....	1
CONST-105	Survey of the Trades.....	1.5
CONST-110	Occupational Safety.....	2
CONST-114	Print Reading.....	3
CONST-135	Construction Processes: Residential.....	4
CONST-215	Construction Job Site Training.....	2
KNACT-120	Fitness Training.....	0.5
ENGL-122	First-Year College Composition and Reading.....	3
MATH-120	Intermediate Algebra.....	5
total minimum units for the major		22

**Certificate of achievement
Construction and building inspection**

Students completing the program will be able to...

- A. interpret the codes related to the construction industry.
- B. identify code-compliant construction in buildings.
- C. identify types of zoning used in a jurisdiction.
- D. write knowledgeable correction notices.
- E. apply construction terminology.
- F. identify the effects of various governmental agencies involved in the construction industry on a construction project.
- G. interpret blueprints and specifications.

This program is designed to prepare students for a career in building or construction inspection, and it is also valuable for those already employed in the field who wish to upgrade their skills.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a “C” grade or higher. Certificate requirements can be completed by attending classes in the day, the evening, or both.

<i>required courses:</i>	<i>units</i>
CONST-114 Print Reading.....	3
CONST-124 Construction Details and Specifications	3
CONST-170 Fundamentals of Building Inspection	3
CONST-181 Building Code Interpretation: Non-Structural.....	3
CONST-182 Building Code Interpretation: Structural.....	3
CONST-183 Title 24: Energy Conservation Codes	3
CONST-191 Plumbing Code Interpretation.....	3
CONST-192 Mechanical Code Interpretation	3
CONST-266 Electrical Codes: Articles 90-398	3
CONST-267 Electrical Codes: Articles 400-830.....	3
CONST-273 Construction Management	3
total minimum required units	33

Certificate of achievement Construction and supervision and superintendency

Students completing the program will be able to...

- A. estimate materials cost (quantity survey).
- B. apply construction terminology.
- C. schedule sequences of construction projects.
- D. identify the effects of various governmental agencies involved in the construction industry on a construction project.
- E. interpret blueprints and specifications.
- F. utilize instruments used in surveying.

This program is designed for those preparing for supervision responsibilities in the construction industry.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a “C” grade or higher. Certificate requirements can be completed by attending classes in the day, the evening, or both.

<i>required courses:</i>	<i>units</i>
BUS-101 Business English.....	3
BUSMG-120 Introduction to Management Studies.....	3
BUSMG-121 Practices and Concepts of Supervision.....	3
CONST-114 Print Reading.....	3
CONST-116 Plane Surveying	4
CONST-124 Construction Details and Specifications	3
CONST-244 Estimating: Residential	3
CONST-245 Estimating: Commercial.....	3
CONST-273 Construction Management Studies.....	3
CONST-276 Legal Aspects of the Construction Industry....	3
total minimum required units	31

Certificate of achievement Construction management

Students completing the program will be able to...

- A. estimate materials cost (quantity survey).
- B. apply construction terminology.
- C. schedule sequences of construction projects.
- D. identify the effects of various governmental agencies involved in the construction industry on a construction project.
- E. interpret blueprints and specifications.

This two-year program is designed to prepare students for positions in middle management or as technicians in the construction industry, working with a contractor, architect, engineer, or supplier and including such duties as material takeoff, estimating costs, purchasing, and timekeeping.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a “C” grade or higher. Certificate requirements can be completed by attending classes in the day, the evening, or both.

<i>required courses:</i>	<i>units</i>
ARCHI-244 Architectural Practice and Working Drawings I.....	3
BUS-101 Business English	3
COMSC-101 Computer Literacy	4
CONST-135 Construction Processes: Residential	4
CONST-136 Construction Processes: Commercial.....	4
CONST-144 Materials of Construction	3
CONST-244 Estimating: Residential	3
CONST-273 Construction Management.....	3
CONST-276 Legal Aspects of the Construction Industry....	3
MATH-120 Intermediate Algebra.....	5
PHYS-110 Elementary Physics.....	3
total minimum required units	38

Certificate of achievement Pre-apprenticeship

Students completing the program will be able to...

- A. interpret blueprints and specifications.
- B. apply construction terminology.
- C. use currently available basic personal protective equipment and be able to select appropriate equipment for a given environment.
- D. identify the most common sources of occupational injury and death.
- E. apply principles of job site safety.
- F. practice professional behavior on the construction site.
- G. demonstrate a clear understanding of many trades, interactions, interdependencies, and how the basic construction process flows from one trade to another.

This program prepares students for entry-level jobs in the building trades and/or entry into apprenticeship programs. Program content includes introduction to construction processes, occupational health and safety principles, and blueprint reading. In addition, the program provides contextualized math and English, physical education, a survey of trades, and college and workplace success.

Upon completion of the program students will be able to directly enter the Northern California Laborers' union, enter the Carpenters Training Committee for Northern California pre-apprenticeship program, or apply to a variety of apprenticeship programs, government agencies, and private-sector employers.

The certificate of achievement requires completion of 21 units of study and certain courses also meet requirements of other construction degrees and certificates. Students must complete each course used to meet a certificate requirement with a "C" grade or higher. Students are advised that entry into apprenticeship programs can be highly competitive and that many trades require documentation of at least one year of high school or one term of college algebra. Completion of higher levels of English and mathematics than are required by the certificate are highly recommended. Students will enroll in CARER-140, CONST-105, CONST-135, CONST-215, and KNACT-120 as a cohort and complete these courses in one term.

<i>required courses:</i>	<i>units</i>
CARER-140 Job Search Strategies	1
CONST-105 Survey of the Trades	1.5
CONST-110 Occupational Safety.....	2
CONST-114 Print Reading.....	3
CONST-135 Construction Processes: Residential	4
CONST-215 Construction Job Site Training	2
KNACT-120 Fitness Training	0.5
MATH-092* Math for Trade Pre-Apprentices	4
<i>plus at least 3 units from*:</i>	
ENGL-096 Introduction to College Reading and Study Skills	3
ENGL-098 Introduction to College Writing.....	3
total minimum required units	21

* Higher level Math and English may be substituted for the Certificate of Achievement. You must have completed English and Math at the level designated or higher through assessment or prior equivalent classes or by concurrent enrollment.

Certificate of accomplishment Pre-apprenticeship

Students completing the program will be able to...

- A. interpret blueprints and specifications.
- B. apply construction terminology.
- C. use currently available basic personal protective equipment and be able to select appropriate equipment for a given environment.
- D. identify the most common sources of occupational injury and death.
- E. apply principles of job site safety.
- F. practice professional behavior on the construction site.
- G. demonstrate a clear understanding of many trades, interactions, interdependencies, and how the basic construction process flows from one trade to another.

This program prepares students for entry-level jobs in the building trades and/or entry into apprenticeship programs. Certain courses also meet requirements of other construction degrees and certificates. Students must complete each course with a "C" grade or higher.

<i>required courses:</i>	<i>units</i>
CONST-110 Occupational Safety.....	2
CONST-114 Print Reading.....	3
<i>plus at least 3 units from*:</i>	
ENGL-096 Introduction to College Reading and Study Skills	3
ENGL-097 Introduction to College Reading and Writing	5
ENGL-098 Introduction to College Writing.....	3
<i>plus at least 3 units from*:</i>	
MATH-090 Elementary Algebra	5
MATH-092 Math for Trade Pre-Apprentices.....	4
MATH-120 Intermediate Algebra	5
MATH-121 Plane Trigonometry	3
total minimum required units	11

*Higher level Math and English may be substituted for the Certificate of Accomplishment.

CONST-101 Exploring Construction, Architecture, Manufacturing, and Engineering

- 1 unit P/NP
- 18 hours lecture/22 hours laboratory per term
 - Note: Field trips required.

This course provides an overview of employment trends, work attitudes, values, materials, processes, and career opportunities in construction, architecture, manufacturing, and engineering. Students will explore these topics through lecture and hands-on experience with high-tech equipment and processes, guest lectures, and field trips to industrial sites. CSU

CONST-105 Survey of the Trades

- 1.5 units SC
- 18 hours lecture/36 hours laboratory per term
 - Note: This course is part of the career advancement academy construction trades program.

The course presents a survey of career opportunities and requirements of the skilled trades as well as basic theoretical and practical skills common to all construction trades. CSU

CONST-110 Occupational Safety

2 units SC

- 36 hours lecture/18 hours laboratory per term
- Note: Students meeting all course requirements will be eligible for a 30 hour OSHA Construction Safety Card. Students may petition to repeat when regulatory or industry standards change. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course covers the principles of health and safety in construction. Occupational Safety and Health Administration (OSHA) and Environmental Protection Agency (EPA) regulations and how they are applied to construction will be covered. CSU

CONST-114 Print Reading

3 units SC

- 54 hours lecture per term

This course presents the interpretation of construction documents, drawings, and specifications used in the building industry. Students are introduced to project plans for single and multi-family dwellings as well as mixed-use and light commercial. CSU

CONST-116 Plane Surveying

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Prerequisite: MATH-121 or equivalent
- Note: Same as ENGIN-140

This course covers the principles and practices of surveying including measurement of distances, directions, elevations and measuring standards. An introduction to electronic measurements and calibration as well as systematic and random error analysis is presented. Students will use surveying instruments, perform Global Positioning System (GPS) measurements; and gain experience with map reading and mapping. CSU, UC

CONST-124 Construction Details and Specifications

3 units SC

- 54 hours lecture per term

This course presents the study of construction drawings and specifications for building systems. Details related to foundations, roofs, windows, doors, stairs, elevators, metal fabrications, and reinforced concrete are covered. The study of thermal and moisture protection, structural steel, wood-framed, and heavy-timber buildings and the interpretation and sketching of details is emphasized. CSU

CONST-135 Construction Processes: Residential

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Note: Credit by examination option available.

This course is an introduction to basic processes of the construction industry. Students will study light wood-frame construction and code requirements in residential construction. The areas of focus include quantity analysis, work activity sequencing and scheduling. CSU

CONST-136 Construction Processes: Commercial

4 units SC

- 54 hours lecture/54 hours laboratory per term

This course is an overview of the processes of heavy construction including review of the working plans/drawings, construction sites, layout, substructures, superstructures made of concrete, steel, masonry, and wood. CSU

CONST-144 Materials of Construction

3 units SC

- 54 hours lecture per term

This course introduces the performance characteristics of construction materials. Testing concepts and procedures, basic properties of metals, concrete, timber, masonry, and roofing materials with an emphasis on construction applications will also be covered. CSU

CONST-150 Topics in Construction

.3-4 units SC

- Variable hours

A supplemental course in construction designed to provide a study of current concepts and problems in construction. Specific topics to be announced in the schedule of classes. CSU

CONST-170 Fundamentals of Building Inspection

3 units SC

- 54 hours lecture per term

This course is focused on basic construction inspection procedures and the inspector's legal responsibilities. Topics to be covered include inspecting structures, occupancy types, safety, and proper record keeping. CSU

CONST-180 California Building Codes for Disability Access

3 units SC

- 54 hours lecture per term

This course provides an overview of building codes as they relate to disability access. Federal and State statutes, regulations, and case law associated with disability will also be covered. CSU

CONST-181 Building Code Interpretation: Non-Structural

3 units SC

- 54 hours lecture per term

This course provides an overview of the legal requirements associated with building inspection. Nonstructural plan check review, and inspection procedures for commercial and industrial buildings will also be covered. CSU

CONST-182 Building Code Interpretation: Structural

3 units SC

- 54 hours lecture per term
- Recommended: MATH-090 or MATH-090SP or MATH-090E or one year of high school algebra or equivalent

This course acquaints the student with legal requirements associated with building inspection. The development of code item checklists and structural plan reviews will also be covered. CSU

CONST-183 Title 24: Energy Conservation Codes

3 units SC

- 54 hours lecture per term

This course presents an overview of Title 24 energy conservation and energy compliance codes. The focus of the course is on building a plan inspection and construction field inspection. Energy projects, streamlining energy compliance forms review, case studies, and reviewing plan checking and building inspection procedures will also be covered. CSU

CONST-191 Plumbing Code Interpretation

3 units SC

- 54 hours lecture per term
- Note: Students may petition to repeat when code changes. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course covers the interpretation and application of codes and standards as they apply to construction of plumbing systems. CSU

CONST-192 Mechanical Code Interpretation

3 units SC

- 54 hours lecture per term

This course acquaints students with legal requirements associated with building inspections. The California Mechanical Code and other standards as they apply to heating, ventilation, and refrigeration will also be discussed. CSU

CONST-215 Construction Job Site Training

2 units SC

- 9 hours lecture/81 hours laboratory per term
- Note: Job site experiences are scheduled off-campus. Students must provide transportation to and from job sites.

This course provides students with real job site experience in the construction trades. Students will participate as individuals and/or in group projects with organizations such as Habitat for Humanity and other community organizations. CSU

CONST-244 Estimating: Residential

3 units SC

- 54 hours lecture per term
- Recommended: CONST-114 or CONST-135 or equivalent

This course will present the procedures for estimating materials, labor costs, time management, and bidding strategies for residential construction projects. CSU

CONST-245 Estimating: Commercial

3 units SC

- 54 hours lecture per term
- Recommended: CONST-114 and CONST-136 or equivalents

This course will present the procedures for estimating materials, labor costs, time management, and bidding strategies for commercial construction projects. CSU

CONST-266 Electrical Codes: Articles 90-398

3 units SC

- 54 hours lecture per term
- Note: Same as ELECT-266. Students may petition to repeat when code changes. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course covers the interpretation of the National Electrical Code (NEC) for general requirements, wiring and protection, wiring methods and materials (articles 90-398). Safety installation practices will be presented.

CONST-267 Electrical Codes: Articles 400-830

3 units SC

- 54 hours lecture per term
- Note: Same as ELECT-267. Students may petition to repeat when code changes. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course covers the interpretation of the National Electrical Code (NEC) for equipment for general use, special occupancies and special equipment (articles 400-830). Safety installation practices will be presented.

CONST-273 Construction Management

3 units SC

- 54 hours lecture per term

This course presents an introduction to administrative procedures, contracts, plans and specifications, schedules, diaries, inspections, report writing, and other forms of communication in the construction field. The different roles in construction management will also be discussed. CSU

CONST-276 Legal Aspects of the Construction Industry

- 3 units SC
• 54 hours lecture per term

This course provides a summary of the legal implications of the duties and responsibilities of a construction supervisor, superintendent, and contractor. The emphasis is on the practical aspects of legal theories, codes, and cases that are applied to the construction industry. Attention will also be given to contracts and their interpretations. CSU

CONST-295 Occupational Work Experience Education in CONST

- 1-4 units SC
• May be repeated three times
• Variable hours
• Note: In order to enroll in CONST-295, students must be employed, register for the course, complete an online Employment Form, and participate in an orientation. Employment Form can be accessed at www.dvc.edu/wrxx. Incomplete grades are not awarded for this course.

CONST-295 is supervised employment that extends classroom learning to the job site and relates to the student's chosen field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Five hours work per week or seventy-five hours work per term is equal to one unit. Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

CONST-298 Independent Study

- .5-3 units SC
• Variable hours
• Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

CONST-299 Student Instructional Assistant

- .5-3 units SC
• Variable hours
• Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

COUNSELING – COUNS

Beth Hauscarriague, Dean
Counseling Division
Student Services Center, Room 203

Possible career opportunities

Diablo Valley College's counseling courses are designed to assist students in identifying educational and career goals, and enhancing their success through instruction in career and educational planning and student success strategies.

COUNS-075 Topics in College Readiness

- .3-4 units P/NP
• Non degree applicable
• Variable hours

A supplemental course which provides a variety of topics for students preparing for college-level work. Specific topics will be announced in the schedule of classes.

COUNS-095 Educational Planning

- .3 unit P/NP
• Non degree applicable
• 6 hours lecture per term
• Limitation on enrollment: Students must complete the online orientation and math and English assessments prior to enrolling in this course.

This course provides an introduction to educational goal setting and course selection. Students will develop a plan to succeed in achieving their educational goal. Topics will include identification of educational and career goals, academic assessment, counseling and advising services.

COUNS-096 Orientation for Student-Athletes

- .3 unit P/NP
• Non degree applicable
• 6 hours lecture per term
• Limitation on enrollment: Students must complete the online orientation and math and English assessments prior to enrolling in this course.

This course provides an introduction to educational goal setting and course selection for student-athletes. Students will develop an education plan to succeed in achieving their educational and athletic goals. Topics include general college information, intercollegiate academic eligibility requirements and regulations, registration procedures, and student-athlete academic success strategies. Important college services for student-athletes will be emphasized.

COUNS-097 Educational Planning for DSS Students

.3 unit P/NP

- *Non degree applicable*
- *6 hours lecture per term*
- *Note: Submit disability documentation to the DSS office in SSC-248 prior to registering for this course. Completion of English and mathematics assessment four days prior to this course will facilitate appropriate course selection.*

This course provides an introduction to college for students with disabilities using course content tailored to meet the unique needs of this population. It will provide students in Disability Support Services (DSS) with a concrete plan for enrolling and succeeding in college. Topics include: an overview of DSS services and accommodations at Diablo Valley College (DVC), an explanation of the differences between high school and college, an overview of general information about certificate, associate degree and transfer pathways, and how to build a student educational plan.

COUNS-100 New Student Success Strategies

1 unit SC

- *18 hours lecture per term*

This course introduces new students to information, resources and skills necessary for college success. Topics will include educational opportunities, campus resources, study skills and strategies. The class also provides instruction in educational planning to reach certificate, degree and transfer goals. CSU, UC (Credit limitations may apply to UC, see counselor.)

COUNS-120 Student Success

3 units SC

- *54 hours lecture per term*
- *Recommended: Eligibility for ENGL-122 or equivalent*

This course presents skills and strategies to succeed as a college student. Topics such as motivation and attitudes, time management, decision-making processes, goal-setting, critical thinking skills, study skills and interpersonal communication will be explored. Students will evaluate their own skills and behaviors in relation to these topics and learn strategies to make meaningful choices about their education, career and personal goals. CSU, UC (credit limits may apply to UC - see counselor)

COUNS-130 Transfer Planning

1.5 units SC

- *27 hours lecture per term*
- *Recommended: Eligibility for ENGL-122 or equivalent*

Through this course students will research, evaluate and develop a transfer plan that is well organized and specific to the individual's life circumstance and educational goals. Students explore the world of transfer from academic, financial, and personal development perspectives. A key component of this course is learning research skills and strategies using a variety of techniques to find, retrieve and evaluate transfer planning information to create a personal education plan. CSU

COUNS-150 Topics in Counseling

.3-4 units SC

- *Variable hours*

A supplemental course designed to provide personal and social development skills related to academic issues. Specific topics will be announced in the schedule of classes. CSU

COUNS-155 Topics in Group Counseling

.3-4 units SC

- *Variable hours*

An interpersonal experience designed to develop self-awareness and to increase understanding of and competence in interpersonal relationships. CSU

CULINARY ARTS – CULN

Despina Prapavessi, Dean

Business Division

Math Building, Room 267

Possible career opportunities

The culinary arts program provides professional training for employment as a chef, culinary supervisor, cookbook author, recipe taster, cook, kitchen manager, food server, caterer, food researcher, banquet chef, dining room manager, food stylist, menu planner, community nutrition specialist, and school foodservice specialist.

The baking program is designed to prepare students to work as pastry chefs in local restaurants, hotels, resorts, bakeries, and catering establishments. Career options include bakery production finisher, pastry decorator, caterer, baker assistant, bakery entrepreneur, and bakery chef at grocery food chains, cafes, restaurants, bakeries, hospitals, resorts, child care facilities, cafeterias, food preparation centers, and catering facilities.

The restaurant management program prepares students to enter the restaurant field as a manager-trainee in a food service establishment. Career options include: restaurant owner/operator, hotel banquet manager, dining room manager, purchasing specialist, catering manager, and food editor. Some career options may require more than two years of college study.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

**Associate in science degree
Hospitality studies -
Baking and pastry**

Students completing the program will be able to...

- A. identify equipment and utensils used in baking and discuss proper use and care.
- B. demonstrate an understanding of the properties and functions of various ingredients, and demonstrate proper scaling and measurement techniques.
- C. evaluate quality standards in baking and pastry products in written and oral form.

**Associate in science degree
Hospitality studies -
Culinary arts**

Students completing the program will be able to...

- A. demonstrate an understanding of the criteria for excellence in purchasing food, preparing food, and presenting food for service.
- B. demonstrate teamwork in planning, purchasing, preparing and presenting food for service.
- C. demonstrate and describe the differences in producing foods for large events vs. a la carte dining.

**Associate in science degree
Hospitality studies -
Restaurant management**

Students completing the program will be able to...

- A. demonstrate an understanding of the criteria for proper service techniques used in the culinary industry.
- B. demonstrate teamwork, planning, purchasing, production and service.
- C. pursue opportunities available in California's hospitality and culinary industry.

The associate in science degree in hospitality studies prepares students for entry into mid-level employment in one of three specialty areas of the hospitality and culinary arts industry: baking and pastry, culinary arts, restaurant management. This in-depth, hands-on, American Culinary Federation (ACF) accredited program of study prepares students for a professional hospitality and culinary career in a broad scope of industry opportunities in the following areas of specialization:

The DVC Culinary Program has been successfully preparing students for professional careers for the past 40 years.

Baking and pastry:

DVC has been placing students in small and large bakeries, specialty pastry shops, catering and dessert preparation in restaurants. Diablo Valley College's baking and pastry program offers an in-depth, hands-on learning curriculum where students gain both knowledge and experience through the hotel and restaurant management program's technical facilities. In addition to training at the DVC facilities, students gain experience working outside the college through a required internship program. DVC's associate degree in hospitality studies with a specialization in baking and pastry is designed primarily for those students who desire to complete a two-year degree. General Education Option 1 (DVC General Education) is appropriate for students who do not intend to transfer. Students who are interested in pursuing a management-focused program in hospitality should see a counselor and consider the General Education Requirements Options 2 or 3.

Culinary arts:

Diablo Valley College's culinary arts program offers an in-depth, hands-on learning curriculum where students gain both knowledge and experience in the hotel and restaurant management program's technical facilities. In addition to training at the DVC facilities, students gain experience working outside the college through a required internship program. DVC's associate degree in hospitality studies with a specialization in culinary arts is designed primarily for those students who desire to complete a two-year degree. General Education Option 1 (DVC General Education) is appropriate for students who do not intend to transfer. Students who are interested in pursuing a management-focused program in hospitality should see a counselor and consider the General Education Options 2 or 3.

Restaurant management:

Diablo Valley College's restaurant management program offers an in-depth, hands-on learning curriculum where students gain both knowledge and experience through the hotel and restaurant management program's technical facilities. Restaurant management students work and learn in a fully equipped food production kitchen, a demonstration laboratory, a retail pastry shop and a 60-seat restaurant that is open to the public. In addition to training at the DVC facilities, students gain experience working outside the college through a required internship program. DVC's associate degree in hospitality studies with a specialization in restaurant management is geared primarily towards DVC's culinary students desiring some additional management coursework. Students who are interested in pursuing a management-focused program in hospitality should expect to complete a four-year degree program at a university. These students should see a counselor and consider the General Education Requirements Options 2 or 3.

Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file in the Culinary Department Office by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. To earn an associate in science degree, students must complete each course used to meet a certificate requirement with a "C" grade or higher and maintain an overall GPA of 2.5 or higher in the coursework required for the degree.

Students are limited to one associate in science degree regardless of the number of specializations completed. Multiple certificates may be awarded.

<i>major requirements:</i>	<i>units</i>
CULN-105 Introduction to the Kitchen	0.5
CULN-110 Orientation to Hospitality	3
CULN-115 Culinary Mathematics	1.5
CULN-120 Fundamentals of Cuisine	5
CULN-153 Safety and Sanitation	2
CULN-185 Nutritional Guidelines in Food Preparation	2
CULN-192 Purchasing Operations and Systems Laboratory	2.5
CULN-193 Inventory and Ordering Systems Laboratory ...	0.3
CULN-195 Supervisory Management in Food Service	3
CULN-224 Catering Business and Operations.....	2

plus at least 2 units from one of the following courses:

CULN-295 Occupational Work Experience Education in CULN.....	2-4
CULN-296 Internship in Occupational Work Experience Education in CULN	2-4
CULN-298 Independent Study.....	2-3
CULN-299 Student Instructional Assistant.....	2-3

plus at least 1 unit from:

CULN-230A Culinary Competition I	0.5
CULN-230B Culinary Competition II	0.5
CULN-235A Off-Campus Catering I	0.5-1
CULN-235B Off-Campus Catering II	0.5-1

plus at least 1.5 units from:

CULN-240A On-Campus Catering I.....	0.5-1
CULN-240B On-Campus Catering II.....	0.5-1
CULN-240C On-Campus Catering III.....	0.5-1

Choose one of the following three specialization areas:

baking and pastry

<i>required courses:</i>	<i>units</i>
CULN-181 Fundamental Techniques of Baking and Pastry	6.5
CULN-281 Advanced Techniques of Baking and Pastry....	6.5

plus at least 2 units from:

CULN-129 Introduction to Urban Farming: Farm-to-Table	1
CULN-186 Sustainable Hospitality - Energy, Water and Waste.....	1
CULN-210 Artisan Bread	1
CULN-212 Candies, Chocolates, and Truffles.....	1
CULN-213 Seasonal Spring Desserts	1
CULN-214 Seasonal Fall Desserts	1
CULN-215 Decorative Confectionary Showpieces	1

total minimum units for the major - baking and pastry 41.3

culinary arts

<i>required courses:</i>	<i>units</i>
CULN-127 Garde Manger	2
CULN-154 Menu Development and Planning.....	2
CULN-167 Restaurant Operations in the Dining Room.....	3
CULN-175 Meat, Poultry and Fish Fabrication.....	2
CULN-220 Advanced Cuisine	5

plus at least 1.5 units from:

CULN-161 Baking for Culinary Students	1.5
CULN-181 Fundamental Techniques of Baking and Pastry	6.5

plus at least 2 units from:

CULN-129 Introduction to Urban Farming: Farm-to-Table.....	1
CULN-160 Fundamentals of Beverage, Wine and Spirits ..	3
CULN-186 Sustainable Hospitality - Energy, Water and Waste.....	1
total minimum units for the major - culinary arts.....	43.8

restaurant management

<i>required courses:</i>	<i>units</i>
BUSAC-181 Applied Accounting.....	3
CULN-154 Menu Development and Planning.....	2
CULN-160 Fundamentals of Beverage, Wine and Spirits	3
CULN-167 Restaurant Operations in the Dining Room.....	3
CULN-201 Principles of Food, Beverage, and Cost Controls	3
CULN-216 Food and Wine Pairing.....	1.5

plus at least 1.5 units from:

CULN-161 Baking for Culinary Students	1.5
CULN-181 Fundamental Techniques of Baking and Pastry	6.5

total minimum units for the major - restaurant management 43.3

**Certificate of achievement
Baking and pastry**

Students completing the program will be able to...

- A. explain and apply baking/pastry terms and procedures appropriately.
- B. select, organize, and analyze ingredients used in baking and pastry production.
- C. select, recognize, and utilize equipment and tools used in baking and pastry production.
- D. scale and measure ingredients properly.
- E. produce an array of bakery and pastry products.
- F. evaluate quality standards in bakery and pastry products in written and oral form.

This in-depth training program prepares students for many entry-level positions in small and large bakeries, specialty pastry shops, dessert catering, and dessert preparation in restaurants. Our graduates enter the baking and pastry field and many have started their own businesses.

Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file in the Culinary Department Office by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Certificate requirements may only be completed by attending a combination of day and evening classes.

Culinary arts

required courses:

	<i>units</i>
CULN-105 Introduction to the Kitchen	0.5
CULN-110 Orientation to Hospitality	3
CULN-115 Culinary Mathematics	1.5
CULN-120 Fundamentals of Cuisine	5
CULN-153 Safety and Sanitation	2
CULN-181 Fundamental Techniques of Baking and Pastry	6.5
CULN-185 Nutritional Guidelines in Food Preparation	2
CULN-192 Purchasing Operations and Systems Laboratory	2.5
CULN-193 Inventory and Ordering Systems Laboratory ...	0.3
CULN-195 Supervisory Management in Food Service.....	3
CULN-224 Catering Business and Operations.....	2
CULN-281 Advanced Techniques of Baking and Pastry	6.5

plus at least 2 units from:

CULN-129 Introduction to Urban Farming: Farm-to-Table	1
CULN-186 Sustainable Hospitality - Energy, Water and Waste	1
CULN-210 Artisan Bread	1
CULN-212 Candies, Chocolates, and Truffles.....	1
CULN-213 Seasonal Spring Desserts	1
CULN-214 Seasonal Fall Desserts	1
CULN-215 Decorative Confectionary Showpieces	1

plus at least 1 unit from:

CULN-230A Culinary Competition I	0.5
CULN-230B Culinary Competition II	0.5
CULN-235A Off-Campus Catering I.....	0.5-1
CULN-235B Off-Campus Catering II.....	0.5-1

plus at least 1.5 units from:

CULN-240A On-Campus Catering I.....	0.5-1
CULN-240B On-Campus Catering II.....	0.5-1
CULN-240C On-Campus Catering III.....	0.5-1

plus at least 2 units from one of the following courses:

CULN-295 Occupational Work Experience Education in CULN.....	2-4
CULN-296 Internship in Occupational Work Experience Education in CULN	2-4
CULN-298 Independent Study.....	2-3
CULN-299 Student Instructional Assistant.....	2-3

total minimum required units 41.3

Certificate of achievement Culinary arts

Students completing the program will be able to...

- A. demonstrate the proper application of dry, moist, and combination cooking methods to a variety of food products.
- B. demonstrate current Food Service sanitation procedures.
- C. serve food according to professional industry standards.
- D. calculate costs and apply procedures in order to run a cost effective food service establishment.
- E. create menus that incorporate menu planning principles that maximize sales and profits.
- F. produce a variety of bakery products using standard baking procedures and evaluate the products based of method, timing, appearance, texture, cell structure and overall eating quality.
- G. demonstrate the ability to work as an effective member of a production team.

This in-depth, hands-on training program prepares students for a professional culinary career. Our certificate program is accredited by the American Culinary Federation Educational Institute, a national organization of professional chefs. Our graduates enter the culinary field and many have progressed to the position of executive chef.

Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file in the Culinary Department Office by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Certificate requirements may only be completed by attending a combination of day and evening classes.

required courses:

	<i>units</i>
CULN-105 Introduction to the Kitchen	0.5
CULN-110 Orientation to Hospitality	3
CULN-115 Culinary Mathematics	1.5
CULN-120 Fundamentals of Cuisine	5
CULN-127 Garde Manger	2
CULN-153 Safety and Sanitation.....	2
CULN-154 Menu Development and Planning.....	2
CULN-167 Restaurant Operations in the Dining Room.....	3
CULN-175 Meat, Poultry and Fish Fabrication.....	2
CULN-185 Nutritional Guidelines in Food Preparation	2
CULN-192 Purchasing Operations and Systems Laboratory	2.5
CULN-193 Inventory and Ordering Systems Laboratory ...	0.3
CULN-195 Supervisory Management in Food Service.....	3
CULN-220 Advanced Cuisine	5
CULN-224 Catering Business and Operations.....	2

plus at least 1.5 units from:

CULN-161 Baking for Culinary Students.....	1.5
CULN-181 Fundamental Techniques of Baking and Pastry	6.5

plus at least 2 units from:

CULN-129	Introduction to Urban Farming: Farm-to-Table.....	1
CULN-160	Fundamentals of Beverage, Wine and Spirits ..	3
CULN-186	Sustainable Hospitality - Energy, Water and Waste.....	1

plus at least 1 unit from:

CULN-230A	Culinary Competition I	0.5
CULN-230B	Culinary Competition II	0.5
CULN-235A	Off-Campus Catering I	0.5-1
CULN-235B	Off-Campus Catering II	0.5-1

plus at least 1.5 units from:

CULN-240A	On-Campus Catering I	0.5-1
CULN-240B	On-Campus Catering II	0.5-1
CULN-240C	On-Campus Catering III	0.5-1

plus at least 2 units from one of the following courses:

CULN-295	Occupational Work Experience Education in CULN.....	2-4
CULN-296	Internship in Occupational Work Experience Education in CULN	2-4
CULN-298	Independent Study.....	2-3
CULN-299	Student Instructional Assistant.....	2-3

total minimum required units 43.8

**Certificate of achievement
Restaurant management**

Students completing the program will be able to...

- A. explain factors that determine quality food.
- B. explain and list both the advantages and disadvantages comparing full service to buffet service.
- C. plan, organize, setup and serve special events for 100-150 guests.
- D. calculate cost and apply procedures in order to run a cost effective food service establishment.

Our in-depth, hands-on training program prepares students to begin their careers in restaurant management. Our graduates enter the hospitality industry and many progress to management positions.

Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file in the Culinary Department Office by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Certificate requirements may only be completed by attending a combination of day and evening classes.

required courses:

BUSAC-181	Applied Accounting.....	3
CULN-105	Introduction to the Kitchen	0.5
CULN-110	Orientation to Hospitality	3
CULN-115	Culinary Mathematics	1.5
CULN-120	Fundamentals of Cuisine	5
CULN-153	Safety and Sanitation.....	2
CULN-154	Menu Development and Planning.....	2
CULN-160	Fundamentals of Beverage, Wine and Spirits	3
CULN-167	Restaurant Operations in the Dining Room.....	3
CULN-185	Nutritional Guidelines in Food Preparation	2
CULN-192	Purchasing Operations and Systems Laboratory	2.5
CULN-193	Inventory and Ordering Systems Laboratory ...	0.3
CULN-195	Supervisory Management in Food Service.....	3
CULN-201	Principles of Food, Beverage, and Cost Controls	3
CULN-216	Food and Wine Pairing.....	1.5
CULN-224	Catering Business and Operations.....	2

plus at least 1.5 units from:

CULN-161	Baking for Culinary Students.....	1.5
CULN-181	Fundamental Techniques of Baking and Pastry	6.5

plus at least 1 unit from:

CULN-230A	Culinary Competition I	0.5
CULN-230B	Culinary Competition II	0.5
CULN-235A	Off-Campus Catering I	0.5
CULN-235B	Off-Campus Catering II	0.5

plus at least 1.5 units from:

CULN-240A	On-Campus Catering I	0.5-1
CULN-240B	On-Campus Catering II	0.5-1
CULN-240C	On-Campus Catering III	0.5-1

plus at least 2 units from one of the following courses:

CULN-295	Occupational Work Experience Education in CULN.....	2-4
CULN-296	Internship in Occupational Work Experience Education in CULN	2-4
CULN-298	Independent Study.....	2-3
CULN-299	Student Instructional Assistant.....	2-3

total minimum required units 43.3

Note: DVC's restaurant management certificate is geared primarily toward DVC's culinary students desiring some additional management coursework. Students who are interested in pursuing a management-focused program in hospitality should expect to complete a four-year degree program at a university.

**Certificate of accomplishment
Culinary arts**

Students completing the program will be able to...

- A. explain typical career ladders for employees in the hospitality industry.
- B. select and explain the use of the appropriate kitchen equipment for specific kitchen tasks.
- C. explain proper health and safety procedures in the kitchen environment.
- D. identify critical control points during all food handling processes as a method to minimize the risk of food-borne illness.
- E. demonstrate different types of cooking methods.
- F. identify and prepare basic stocks, soups, and sauces.
- G. demonstrate the following tasks: follow a standard recipe, use standard weights and measures, and perform basic skills with culinary equipment.
- H. describe properties and functions of various ingredients and interpret recipes and produce cookies, quick breads, pies, cakes, creams, custards and sauces, and meringues.

This training program prepares students for many entry-level positions in commercial kitchens and bakeries, specialty shops, and catering businesses. This certificate of accomplishment is the first step in pursuing a certificate of achievement in culinary arts, baking and pastry, or restaurant management.

Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file in the Culinary Department Office by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. To earn a certificate of accomplishment, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Certificate requirements may only be completed by attending a combination of day and evening scheduled classes.

<i>required courses:</i>	<i>units</i>
CULN-105 Introduction to the Kitchen	0.5
CULN-110 Orientation to Hospitality	3
CULN-120 Fundamentals of Cuisine	5
CULN-153 Safety and Sanitation.....	2
CULN-161 Baking for Culinary Students.....	1.5
total minimum required units	12

CULN-100 Exploring Careers in the Hospitality and Culinary Industry

- 1 unit SC
- 18 hours lecture/20 hours laboratory per term
- *Note: This course is open to all, but is particularly appropriate for high school students entering 10th, 11th or 12th grade in the fall term. Chef coat, hat, apron, tools and knives may be provided by college. Instructions will be sent to those enrolled prior to first class meeting.*

This course will offer students an overview of current and emerging career opportunities in the hospitality industry. Topics include resume development, career exploration, industry site visits, review of fundamental skills required in the hospitality industry. Hands-on practice through the preparation of healthy foods, integration of sustainable practices as they relate to the hospitality industry, and employability skills will be emphasized. CSU

CULN-105 Introduction to the Kitchen

- .5 unit SC
- 27 hours laboratory per term
- *Co-requisite: CULN-153 (may be taken previously) or equivalent*
- *Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. See instructor at the first class meeting. Credit by examination option available.*

This course introduces students to the requirements of the culinary arts program with an emphasis on hygiene, safety, and kitchen equipment knowledge. It is specifically designed for students with no familiarity with standard culinary protocols. CSU

CULN-110 Orientation to Hospitality

- 3 units SC
- 54 hours lecture per term
- *Note: Credit by examination option available.*

This course provides an introduction to career opportunities in food service, explores trade publications and professional organizations, and presents the basic organization and function of departments within hospitality and food service establishments. CSU, C-ID HOSP 100

CULN-115 Culinary Mathematics

- 1.5 units LR
- 27 hours lecture per term

This course focuses on the application of math competencies to specific business situations in the food service industry. CSU

CULN-120 Fundamentals of Cuisine

5 units SC

- 270 hours laboratory per term
- Prerequisite: CULN-105 or equivalent
- Co-requisite: CULN-153 (may be taken previously) or equivalent
- Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening and a California Food Handlers Certificate on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. See instructor at the first class meeting.

This course focuses on the practical development of fundamental student skills in knife, tool and culinary equipment handling and introduces basic food preparation per American Culinary Federation (ACF) standards. Students will develop a working knowledge of laws and regulations relating to food safety, personal safety, and maintain proper sanitation in the kitchen. The emphasis is on professional skills required by quantity food service. CSU, C-ID HOSP 160

CULN-123 Sauces of the World

1 unit LR

- 9 hours lecture/27 hours laboratory per term
- Prerequisite: CULN-105 and CULN-153 or equivalents
- Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the Culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms. See instructor at the first class meeting.

This course introduces the preparation of mother sauces, stocks, soups, classical sauces, contemporary sauces, accompaniments, and the pairing of sauces with a variety of foods. CSU

CULN-127 Garde Manger

2 units SC

- 18 hours lecture/54 hours laboratory per term
- Prerequisite: CULN-120 or equivalent
- Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. See instructor at the first class meeting.

A study of the artistic side of cold food preparation from basic garnishes to advanced forcemeat preparations such as gallantines, pates and mousses with an emphasis on decorated platters and other preparations appropriate for buffet service. CSU

CULN-129 Introduction to Urban Farming: Farm-to-Table

1 unit SC

- 9 hours lecture/27 hours laboratory per term
- Note: Class meets off-campus at Rodger Ranch Urban Farm in Pleasant Hill.

This course introduces students growing food for restaurants and useful for anyone who wants to grow their own food. Topics include soil preparation, planting, and organic gardening and farming techniques. Nutrition, menu planning, as well as organic and sustainable practices are also covered. CSU

CULN-150 Topics in Culinary Arts

.3-4 units SC

- Variable hours
- Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. See instructor at the first class meeting.

A supplemental course in culinary arts to provide a study of current concepts and problems in culinary arts and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

CULN-153 Safety and Sanitation

2 units SC

- 36 hours lecture per term
- Note: Credit by examination option available.

This course presents the basic principles of safety and sanitation and their application in food service operations. Effective personal hygiene habits and food handling practices for the protection of consumers are reinforced. This course must be taken before or concurrently with the first culinary laboratory course (CULN-120 or CULN-181). CSU, C-ID HOSP 110

CULN-154 Menu Development and Planning

2 units SC

- 36 hours lecture per term
- Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. See instructor at the first class meeting.

This course provides students with an opportunity to plan and develop basic menus, focusing on techniques and flavors typical of a variety of food service establishments. Healthy menus, culturally diverse menus, seasonal and regional menus are addressed. CSU

CULN-160 Fundamentals of Beverage, Wine and Spirits

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course provides a comprehensive study of beverage service operations and control. Topics include basic production, types of beer, wine, and spirits, merchandising, and regulations concerning service of alcoholic and non-alcoholic beverages, including coffee and tea. CSU

CULN-161 Baking for Culinary Students

- 1.5 units SC
- 9 hours lecture/54 hours laboratory per term
 - Prerequisite: CULN-105 or equivalent and CULN-153 (may be taken concurrently) or equivalent
 - Recommended: Eligibility for ENGL-122 or equivalent
 - Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. See instructor at the first class meeting.

This course provides an applied and theoretical study of basic principles of commercial baking as practiced in hotels, restaurants, and retail bakeries. CSU

CULN-167 Restaurant Operations in the Dining Room

- 3 units SC
- 162 hours laboratory per term
 - Co-requisite: CULN-153 (may be taken previously) or equivalent
 - Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary office by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. See instructor at the first class meeting.

This course provides students with practical experience in the fundamentals of dining room service, including rules and styles of service, various forms of food service, and basic dining room management and planning. CSU

CULN-175 Meat, Poultry and Fish Fabrication

- 2 units SC
- 36 hours lecture per term
 - Note: Culinary and food service students must have a current record of satisfactory TB screening on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. See instructor at the first class meeting.

This course provides students with a comprehensive overview of the meat identification process, including cuts, buying and ordering procedures, nutrition data, food safety and storage, and USDA grading standards. CSU

CULN-181 Fundamental Techniques of Baking and Pastry

- 6.5 units SC
- 36 hours lecture/243 hours laboratory per term
 - Prerequisite: CULN-105 and CULN-153 (may be taken concurrently) or equivalents
 - Recommended: Eligibility for ENGL-122 or equivalent
 - Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. See instructor at the first class meeting.
 - Formerly CULN-180 and CULN-150R

This course presents both practical and theoretical study of fundamental principles of commercial baked goods and pastry production. Students will have extensive hands-on experience in baking techniques to produce commercial quality products in quantity. CSU

CULN-185 Nutritional Guidelines in Food Preparation

- 2 units SC
- 36 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course provides an introduction to food composition, dietary guidelines, recipe modification, food cooking and storage techniques for nutrient retention. Contemporary nutritional issues will be addressed. CSU

CULN-186 Sustainable Hospitality-Energy, Water and Waste

- 1 unit SC
- 18 hours lecture per term

This course presents current information on energy efficiency, water efficiency, and waste to ensure efficient, environmentally sustainable operations in food service. Students will practice decision-making regarding these issues based on science and economics to optimize sustainability and profitability. CSU

CULN-192 Purchasing Operations and Systems Laboratory

- 2.5 units SC
- 135 hours laboratory per term
 - Co-requisite: CULN-153 (may be taken previously) and CULN-193 or equivalents
 - Recommended: CULN-115 or MATH-090 and eligibility for ENGL-122 or equivalents
 - Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary office by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. See instructor at the first class meeting.

This course presents current practices in foodservice purchasing, receiving, storage, issuance, and documentation. This course is appropriate for entry level students and presents product identification and evaluation, as well as the organization of a professional foodservice operation. CSU

CULN-193 Inventory and Ordering Systems Laboratory

.3 unit LR

- 18 hours laboratory by arrangement per term
- Prerequisite: CULN-153 or equivalent
- Co-requisite: CULN-192 or equivalent
- Note: Each student will be assigned to an ordering team which meets either M, T, W or TH from 2-3:30pm. See instructor for details. Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. See instructor at the first class meeting.

In this course, students will learn to order food products for a commercial enterprise, analyze inventory, and utilize specifications, proper pack size, and par levels as needed. CSU

CULN-195 Supervisory Management in Food Service

3 units SC

- 54 hours lecture per term • Recommended: Eligibility for ENGL-122 or equivalent

This course focuses on the application of management principles of supervision to specific business contexts within the food service industry. CSU

CULN-201 Principles of Food, Beverage, and Cost Controls

3 units SC

- 54 hours lecture per term

This course presents the theories and techniques to manage food, beverage, labor, and other costs within a hospitality operation. Emphasis is placed on problem solving and applying cost control techniques to maximize profits while managing expenses. Topics include establishing standards, cost-volume-profit-analysis, forecasting, purchasing and storage controls, menu costing and pricing, theft prevention, and labor control. CSU, C-ID HOSP 120

CULN-210 Artisan Bread

1 unit SC

- 9 hours lecture/27 hours laboratory per term
- Prerequisite: CULN-105 and CULN-153 or equivalents
- Recommended: CULN-161 or CULN-181 or equivalent
- Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary office by the beginning of classes. Students are required to supply their own equipment and uniforms. See instructor at the first class meeting.

This course introduces students to the theory and techniques used in the baking of artisan breads. Topics include the preparation, baking, and presentation of a variety of artisan breads. CSU

CULN-212 Candies, Chocolates, and Truffles

1 unit SC

- 9 hours lecture/27 hours laboratory per term
- Prerequisite: CULN-105 and CULN-153 or equivalents
- Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms. See instructor at the first class meeting.

This introduces students to the theory and techniques used to produce a variety of candies and chocolates specific to the confectionery industry. Topics include the preparation, formation, and presentation of a variety of candies and chocolates including brittle, toffees, meringues, truffles, and bonbons. CSU

CULN-213 Seasonal Spring Desserts

1 unit SC

- 9 hours lecture/27 hours laboratory per term
- Recommended: Eligibility for ENGL-116 and ENGL-118 or equivalents
- Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms. See instructor at the first class meeting.

This course introduces students to the theory and techniques used to produce a variety of basic pastries and desserts specific to the spring season for hotels, restaurants, wholesale and retail bakeries/pastry shops. CSU

CULN-214 Seasonal Fall Desserts

1 unit SC

- 9 hours lecture/27 hours laboratory per term
- Recommended: Eligibility for ENGL-116 and ENGL-118 or equivalents
- Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms. See instructor at the first class meeting.

This course introduces students to the theory and techniques used to produce a variety of basic pastries and desserts specific to the fall season for hotels, restaurants, wholesale and retail bakeries/pastry shops. CSU

CULN-215 Decorative Confectionary Showpieces

1 unit SC

- 9 hours lecture/27 hours laboratory per term
- Recommended: CULN-181 or equivalent
- Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms. See instructor at the first class meeting.

This course presents theory and production techniques of advanced confectionery showpieces including: chocolate, marzipan, sugar, Isomalt, pastillage, and royal icing. CSU

CULN-216 Food and Wine Pairing

1.5 units SC

- 27 hours lecture per term
- Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms. See instructor at the first class meeting.

This course presents the history and geographical distribution of wine production. The pairing of wines with food and menu planning will be emphasized. CSU

CULN-220 Advanced Cuisine

5 units SC

- 270 hours laboratory per term
- Prerequisite: CULN-120 or equivalent
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening and a California Food Handlers Certificate on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. See instructor at the first class meeting.

This course builds on skills developed in the fundamentals of cuisine course (CULN-120), emphasizing preparation of individual plates. Seasonal cooking and market variations, healthy cooking, curing meats, preparing flavored oils and dressings, and composition of effective menu items are integrated into the food preparation activities. Students will develop basic supervisor and kitchen management skills. CSU

CULN-224 Catering Business and Operations

2 units SC

- 36 hours lecture per term

This course provides an introduction to operating a catering business. Topics discussed will include effective client relations, event planning, pricing and cost controls, legal issues, and equipment requirements. Menu planning for a variety of events such as banquets, and plated events will also be covered. CSU

CULN-228 International Cuisine

2 units SC

- 27 hours lecture/27 hours laboratory per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. See instructor at the first class meeting.

This course presents an introduction to cuisines from around the world using cultural, social and historical frameworks. Emphasis will be on cultural contrast that reflects the ethnic culinology of at least three non-European countries. The importance of ethnic cuisine in today's multi-cultural society and its significance and influence on North American culture will also be discussed. CSU

CULN-230A Culinary Competition I

.5 unit SC

- 27 hours laboratory by arrangement per term
- Prerequisite: CULN-120 (may be taken concurrently) or equivalent
- Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. See instructor at the first class meeting.

This course is an introduction to the skills required to participate in a variety of culinary competitions. Possible categories include hot and cold foods, buffet platters, desserts, decorated cakes, confectionery showpieces, and ice carvings. CSU

CULN-230B Culinary Competition II

.5 unit SC

- 27 hours laboratory by arrangement per term
- Prerequisite: CULN-230A or equivalent
- Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. See instructor at the first class meeting.

This course is an advanced application of skills required to participate in a variety of culinary competitions. Possible categories include hot and cold foods, buffet platters, desserts, decorated cakes, confectionery showpieces, and ice carvings. CSU

CULN-235A Off-Campus Catering I

.5-1 unit SC

- Variable hours
- Prerequisite: CULN-105 and CULN-153 or equivalents
- Recommended: CULN-120 or equivalent
- Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. See instructor at the first class meeting.

This course is an introduction to fundamental catering applications. Students will cater various types of off-campus events such as breakfast, lunch, and dinner buffets and plated events, and hors d'oeuvres. CSU

CULN-235B Off-Campus Catering II

.5-1 unit SC

- Variable hours
- Prerequisite: CULN-235A or equivalent
- Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. See instructor at the first class meeting.

This intermediate off-campus catering course includes skill development in specific catering preset, setup, service and breakdown techniques. Students participate as group leaders at catering events. Students will cater various types of off-campus events such as breakfast, lunch, and dinner buffets and plated events, and hors d'oeuvres. CSU

CULN-240A On-Campus Catering I

.5-1 unit P/NP

- Variable hours
- Prerequisite: CULN-105 and CULN-153 or equivalents
- Recommended: CULN-120 or equivalent
- Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. See instructor at the first class meeting.

This course is an introduction to fundamental catering applications. Students will cater various types of on-campus events such as breakfast, lunch, and dinner buffets and plated events, coffee breaks, and hors d'oeuvres. CSU

CULN-240B On-Campus Catering II

.5-1 unit P/NP

- Variable hours
- Prerequisite: CULN-240A or equivalent
- Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. See instructor at the first class meeting.

This intermediate on-campus catering course includes skill development in specific catering preset, setup, service and breakdown techniques. Students participate as group leaders at catering events. This course is an introduction to fundamental catering applications. Students will cater various types of on-campus events such as breakfast, lunch, and dinner buffets and plated events, coffee breaks, and hors d'oeuvres. CSU

CULN-240C On-Campus Catering III

.5-1 unit P/NP

- Variable hours
- Prerequisite: CULN-240B or equivalent
- Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. See instructor at the first class meeting.

This advanced on-campus catering course emphasizes skill development in effective client relations and event planning. Topics include comprehensive equipment requirements, set-up plans, staff management, and service and breakdown techniques. CSU

CULN-281 Advanced Techniques of Baking and Pastry

6.5 units SC

- 36 hours lecture/243 hours laboratory per term
- Prerequisite: CULN-181 or equivalent
- Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. See instructor at the first class meeting.
- Formerly CULN-280 and CULN-150T

This course presents advanced theory and techniques in baking and pastry techniques. Students will practice advanced skills to produce a variety of commercial quality goods typical for hotels, restaurants, and retail bakeries. CSU

CULN-295 Occupational Work Experience Education in CULN

1-4 units SC

- May be repeated three times
- Variable hours
- Note: In order to enroll in CULN-295, students must be employed, register for the course, complete an online Employment Form, and participate in an orientation. Employment Form can be accessed at www.dvc.edu/wrwx. Incomplete grades are not awarded for this course.

CULN-295 is supervised employment that extends classroom learning to the job site and relates to the student's chosen field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Five hours work per week or seventy-five hours work per term is equal to one unit. Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

CULN-296 Internship in Occupational Work Experience Education in CULN

- 1-4 units SC
- *May be repeated three times*
- *Variable hours*
- *Note: In order to enroll in the CULN-296 course, students must be interning or volunteering, register for the course, complete an online Employment Form, and participate in an orientation. The Employment Form can be accessed at www.dvc.edu/wrwx. Incomplete grades are not awarded for this course.*

CULN-296 is a supervised internship in a skilled or professional level assignment in the student’s major field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Internships may be paid, non-paid, or some partial compensation provided. Five hours work per week or seventy-five hours work per term is equal to one unit (paid) or one unit for four hours work per week or sixty hours per term (unpaid work). Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

CULN-298 Independent Study

- .5-3 units SC
- *Variable hours*
- *Note: Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the Culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. See instructor at the first class meeting. Submission of acceptable educational contract to department and Instruction Office is required.*

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

CULN-299 Student Instructional Assistant

- .5-3 units SC
- *Variable hours*
- *Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor. Culinary and food service students must have a current record of satisfactory tuberculosis (TB) screening on file with the culinary offices by the beginning of classes. Students are required to supply their own equipment and uniforms depending on the class. See instructor at the first class meeting.*

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

DANCE – DANCE

Christine Worsley, Dean
 Kinesiology, Athletics and Dance Division
 Kinesiology Office Building, Room 104

Possible career opportunities

Students who receive a degree in dance can not only pursue a career as a professional dancer in commercial dances onstage and in film, but they may also seek careers as dance therapists, dance instructors, or choreographers. Degree recipients can apply their knowledge of dance in areas such as arts administration, studio management, arts grant writing, and dance notators for dance companies.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in arts degree Dance

Students completing the program will be able to...

- A. demonstrate intermediate/advanced mastery of a variety of dance techniques utilizing proper alignment, axial and loco motor skills, and the ability to execute intermediate/advanced performance technique.
- B. analyze the evolution of dance through the twentieth century, including the history of dance and other art forms.
- C. demonstrate the ability to design a dance composition incorporating principles of technique, choreography, music, performance, staging, and aesthetic design.
- D. describe the career and advanced educational opportunities available to them.
- E. analyze the integration of various arts and ideas in selected technical, historical, and thematic contexts for the theater, music and dance performing arts.
- F. demonstrate knowledge of the human body, its relationship between diet and health, and incorporate alternative movement classes to improve physical health to improve performance.

The associate in arts degree in dance is a comprehensive two-year course of study that exposes students to all aspects of the dance discipline. Students will be provided with a solid foundation in dance movement, performance and theory, as well as an opportunity to explore related types of performing arts such as drama and music. Students will improve the technical aspects of their dance technique, gain knowledge in compositional methodology, and perform in dance concerts.

Students may apply this knowledge to work in areas such as commercial dance, choreography, dance therapy and dance instruction. Students wishing to pursue a career in the field of dance should consider this two-year program as it provides preparation for immediate entry into some of the areas listed above and provides a basic foundation for transfer to baccalaureate degrees necessary in other dance disciplines.

While most of the dance major requirements are transferable and many meet prerequisites required of dance majors, this degree is not designed as a transfer curriculum. Students may use any of the three general education patterns for this degree (DVC, IGETC, CSU GE). Students who wish to transfer to four-year institutions must consult with program faculty and college counselors to ensure that the requirements for transfer to the four-year institutions of their choice are met. Students who intend to transfer are advised to select either General Education Option 2 (IGETC) or General Education 3 (CSU GE). General Education Option 1 (DVC GE) is appropriate for students who do not intend to transfer.

To earn an associate in arts degree with a major in dance, students must complete each course used to meet a major requirement with a "C" grade or higher and complete all general education requirements as listed in the catalog. Certain courses may satisfy both major and general education requirements; however the units are only counted once.

<i>complete at least 2 units from 2 different disciplines:</i>		<i>units</i>
DANCE-212	Ballet I.....	1
DANCE-222	Jazz Dance I.....	1
DANCE-232	Modern Dance I.....	1

<i>plus at least 2 units from 2 different disciplines:</i>		
DANCE-213	Ballet II.....	1
DANCE-223	Jazz Dance II.....	1
DANCE-233	Modern Dance II.....	1

<i>plus at least 2 units from 2 different disciplines:</i>		
DANCE-214	Ballet III.....	1
DANCE-216	Pointe Technique.....	1
DANCE-224	Jazz Dance III.....	1
DANCE-234	Modern Dance III.....	1
KNDAN-105A*	Pilates Mat Work I.....	0.5-2
KNDAN-160A*	Tap Dance I.....	0.5-2
KNDAN-160B*	Tap Dance II.....	0.5-2
KNDAN-162*	Broadway Dance.....	0.5-2
KNDAN-164A*	Ballroom/Social Dance I.....	0.5-2
KNDAN-166*	Swing Dance.....	0.5-2
KNDAN-168A*	Salsa and Latin Dance I.....	0.5-2
KNDAN-169A*	Argentine Tango.....	0.5-2
KNDAN-170A*	Beginning Hip-Hop and Urban Funk Dance.....	0.5-2
KNDAN-170B*	Intermediate Hip-Hop and Urban Funk Dance.....	0.5-2

**at least one unit required*

<i>plus at least 2 additional units from: any of the core technique courses not used above.....</i>		<i>2</i>
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total core technique requirements 8

theory requirements

plus all units from:

DANCE-201	Western Dance History: 20th Century to Present.....	3
DANCE-205	Music Theory for Dancers.....	2
DANCE-250	Dance Choreography.....	2

performance requirements

plus at least 6 units from:

DANCE-242	Repertory Dance Production I.....	1
DANCE-243	Repertory Dance Production I - Tech Week....	0.5
DANCE-244	Repertory Dance Production II.....	1
DANCE-245	Repertory Dance Production II - Tech Week...	0.5
DANCE-246	Dance Production I.....	1.5
DANCE-247	Dance Production I - Tech Week.....	0.5
DANCE-248	Dance Production II.....	1.5
DANCE-249	Dance Production II - Tech Week.....	0.5
DANCE-256	Dance Production Choreography.....	1.5
DANCE-257	Dance Production Choreography - Tech Week.....	0.5

stagecraft requirements

plus at least 3 units from:

DRAMA-111	Introduction to Lighting Design.....	3
DRAMA-112	Introduction to Stage Makeup.....	3
DRAMA-113	Introduction to Costume Design.....	3
DRAMA-122	Basic Principles of Acting.....	3
DRAMA-200	Introduction to Technical Theater.....	3

art/music/humanities requirements

plus at least 3 units from:

HUMAN-105	Introduction to Humanities: Arts and Ideas....	3
MUSIC-114	World Music.....	3

total minimum units for the major 27

Limitations on enrollment

Effective fall term 2013, changes to the regulations that govern community college enrollments placed limitations on the number of courses that students may take in certain disciplines within the Contra Costa Community College District. The charts below indicate which Diablo Valley College (DVC) courses are assigned to groups of courses ("families") for which limitations have been imposed. Certain courses within certain "families" may be repeated (see catalog description), however, students are limited to four enrollments within the family. Certain DVC courses are equivalent to courses at Los Medanos College and Contra Costa College. An enrollment in an equivalent course at one of those colleges will count toward the allowable four enrollments within the family.

NOTE: Diablo Valley College may offer experimental or topics courses. When appropriate, based on content, such courses will be assigned to a "family" and that enrollment will be counted as an experience within the "family".

Family: Ballet

KNDAN-110A	Ballet Fundamentals I
KNDAN-110B	Ballet Fundamentals II
DANCE-212	Ballet I
DANCE-213	Ballet II
DANCE-214	Ballet III
DANCE-216	Pointe Technique

Dance

Family: Jazz

- KNDAN-120A Jazz Dance Fundamentals I
KNDAN-120B Jazz Dance Fundamentals II
DANCE-222 Jazz Dance I
DANCE-223 Jazz Dance II
DANCE-224 Jazz Dance III

Family: Modern

- KNDAN-130A Modern Dance Fundamentals I
KNDAN-130B Modern Dance Fundamentals II
DANCE-232 Modern Dance I
DANCE-233 Modern Dance II
DANCE-234 Modern Dance III

Family: Ballroom Dance

- KNDAN-150A Argentine Tango
KNDAN-164A Ballroom/Social Dance I
KNDAN-164B Ballroom/Social Dance II
KNDAN-166 Swing Dance
KNDAN-168A Salsa and Latin Dance I
KNDAN-168B Salsa and Latin Dance II
KNDAN-169A Argentine Tango

Family: Tap

- KNDAN-160A Tap Dance I
KNDAN-160B Tap Dance II

Family: Dance Production

- DANCE-150A Dance Production II
DANCE-242 Repertory Dance Production I
DANCE-244 Repertory Dance Production II
DANCE-246 Dance Production I
DANCE-248 Dance Production II
DANCE-256 Dance Production Choreography

Family: Dance Performance

- DANCE-150B Dance Production II - Tech Week
DANCE-243 Repertory Dance Production I – Tech Week
DANCE-245 Repertory Dance Production II – Tech Week
DANCE-247 Dance Production I - Tech Week
DANCE-249 Dance Production II - Tech Week
DANCE-257 Dance Production Choreography - Tech Week

Family: Dance Survey

- KNDAN-100 Introduction to Dance
KNDAN-162 Broadway Dance

Family: Urban Dance

- KNDAN-150B Beginning Hip-Hop and Urban Funk
KNDAN-150C Intermediate Hip-Hop and Urban Funk
KNDAN-170A Hip-Hop and Urban Funk Dance I
KNDAN-170B Hip-Hop and Urban Funk Dance II

DANCE-150 Topics in Dance

- .3-4 units SC
• *Variable hours*

A supplemental course in Dance to provide a study of current concepts and problems in dance. Specific topics will be announced in the schedule of classes. CSU

DANCE-201 Western Culture Dance History: 20th Century to Present

- 3 units SC
• *54 hours lecture per term*
• *Recommended: Eligibility for ENGL-122 or equivalent*

This course presents the role of dance in Western culture from the beginning of the 20th century through the present day. Historic styles and movements of dance including the Diaghilev period of Ballet and the development of modern dance are discussed, including their influence on present-day ballet, modern, and contemporary dance practice. CSU, UC

DANCE-205 Music Theory for Dancers

- 2 units SC
• *18 hours lecture/54 hours laboratory per term*

This is an introductory course in music and its relationship to dance and dancers. Compositional elements of music and their application to choreography and dance performance will be practiced. CSU, UC

DANCE-212 Ballet I

- 1 unit SC
• *54 hours laboratory per term*
• *Recommended: KNDAN-110A or equivalent*

This is an intermediate course in ballet dance. The focus is on intermediate ballet barre, center adagio, allegro work, and across the floor combinations. The history of classical ballet works and their influence on the ballet dancer and current ballet styles will also be covered. CSU, UC

DANCE-213 Ballet II

- 1 unit SC
• *54 hours laboratory per term*
• *Prerequisite: DANCE-212 or equivalent*

This is an advanced course in ballet dance. The focus is on advanced ballet barre, center adagio, allegro work, and across-the-floor combinations. Basic choreographic principles as they relate to ballet will also be presented. CSU, UC

DANCE-214 Ballet III

- 1 unit SC
• *54 hours laboratory per term*
• *Prerequisite: DANCE-213 or equivalent*

This is an advanced/pre-professional course in ballet dance. The focus is on advanced ballet barre, center adagio, allegro work, and across-the-floor combinations at the pre-professional level. Classical ballet variations and basic pas de deux techniques as they relate to classical ballet will be practiced. CSU, UC

DANCE-216 Pointe Technique

1 unit SC

- 54 hours laboratory per term
- Prerequisite: DANCE-212 or KNDAN-110A or equivalent

This is a course in classical ballet training through the application of pointe technique. The class will focus on line, musicality, sequences, strength and grace as they relate to pointe technique. The historical origins of the pointe shoe, pointe work, conceptual principles of pointe ballet as an art form, and the anatomical structure of the lower extremities will also be presented. CSU, UC

DANCE-222 Jazz Dance I

1 unit SC

- 54 hours laboratory per term
- Recommended: KNDAN-120 or equivalent

This is an intermediate course in jazz dance. The focus is on contemporary, lyrical, hip-hop and Broadway styles. The history of jazz dance on stage, movie, and videos and its influence on the jazz dancer and current jazz dance styles will also be covered. CSU, UC

DANCE-223 Jazz Dance II

1 unit SC

- 54 hours laboratory per term
- Prerequisite: DANCE-222 or equivalent

This is an advanced course in jazz dance. The focus is on advanced jazz dance technique from contemporary, lyrical, hip-hop and Broadway styles. Choreographic principles as they relate to jazz dance will also be covered. CSU, UC

DANCE-224 Jazz Dance III

1 unit SC

- 54 hours laboratory per term
- Prerequisite: DANCE-223 or equivalent

This is an advanced/pre-professional course in jazz dance. The focus is on advanced jazz dance technique from contemporary, lyrical, hip-hop and Broadway styles utilizing pre-professional dance performance skills. Choreographic principles as they relate to jazz dance to enhance performance potential will also be covered. CSU, UC

DANCE-232 Modern Dance I

1 unit SC

- 54 hours laboratory per term
- Recommended: KNDAN-130 or equivalent

This is an intermediate course in modern dance. The focus is on intermediate axial and locomotor movements, styles from early modern, post-modern, and contemporary modern innovators. The history of modern dance and its influence on the modern dancer and current modern dance styles will also be covered. CSU, UC

DANCE-233 Modern Dance II

1 unit SC

- 54 hours laboratory per term
- Prerequisite: DANCE-232 or equivalent

This is an advanced course in modern dance. The focus is on advanced axial and locomotor movements and styles from early modern, post-modern, and contemporary modern innovators. Choreographic principles related to modern dance will also be covered. CSU, UC

DANCE-234 Modern Dance III

1 unit SC

- 54 hours laboratory per term
- Prerequisite: DANCE-233 or equivalent

This is an advanced/pre-professional course in modern dance. The focus is on advanced performance level axial and locomotor movements and styles from early modern, post-modern, and contemporary modern innovators with an emphasis on pre-professional performance quality. Choreographic principles related to modern dance that enhance performance potential will also be covered. CSU, UC

DANCE-242 Repertory Dance Production I

1 unit SC

- 54 hours laboratory by arrangement per term
- Co-requisite: DANCE-243 or equivalent

This course prepares students for a dance performance. The emphasis is on the mastery of faculty-choreographed compositions to be presented to a live audience in a professional theater space. CSU, UC

DANCE-243 Repertory Dance Production I - Tech Week

.5 unit SC

- 36 hours laboratory by arrangement per term
- Co-requisite: DANCE-242 or equivalent

Students will participate in a dance performance of faculty-choreographed compositions for a live audience in a professional theater space. CSU, UC

DANCE-244 Repertory Dance Production II

1 unit SC

- 54 hours laboratory by arrangement per term
- Prerequisite: DANCE-242 or equivalent
- Co-requisite: DANCE-245 or equivalent

This course prepares the experienced dancer for a dance performance. The emphasis is on the mastery of intermediate level faculty-choreographed compositions to be presented to a live audience in a professional theater space. CSU, UC

DANCE-245 Repertory Dance Production II - Tech Week

- .5 unit SC
- 36 hours laboratory by arrangement per term
 - Co-requisite: DANCE-244 or equivalent

This is a dance performance course for the experienced dance student. Students will participate in a dance performance of faculty-choreographed compositions for a live audience in a professional theater space. CSU, UC

DANCE-246 Dance Production I

- 1.5 units SC
- 72 hours laboratory per term
 - Co-requisite: DANCE-247 or equivalent

This course prepares students for a dance performance. The emphasis is on the mastery of student-choreographed compositions to be presented to a live audience in a professional theater space. Students will also participate in the technical and business aspects of the production. CSU, UC

DANCE-247 Dance Production I - Tech Week

- .5 unit SC
- 36 hours laboratory by arrangement per term
 - Co-requisite: DANCE-246 or equivalent

Students will participate in a dance performance of student-choreographed compositions for a live audience in a professional theater space. CSU, UC

DANCE-248 Dance Production II

- 1.5 units SC
- 72 hours laboratory per term
 - Prerequisite: DANCE-246 or equivalent
 - Co-requisite: DANCE-249 or equivalent

This course prepares the experienced dance student for a dance performance. The emphasis is on the mastery of student-choreographed compositions to be presented to a live audience in a professional theater space. Students will also participate in the technical and business aspects of the production. CSU, UC

DANCE-249 Dance Production II - Tech Week

- .5 unit SC
- 36 hours laboratory by arrangement per term
 - Co-requisite: DANCE-248 or equivalent

This is a dance performance course for the experienced dancer. Students will participate in a dance performance of original student-choreographed compositions for a live audience in a professional theater space. CSU, UC

DANCE-250 Dance Choreography

- 2 units SC
- 18 hours lecture/54 hours laboratory per term
 - Formerly DANCE-240

This course provides an introduction to principles of choreography. Dance movement phrasing, spatial design and relationships, rhythm, theme and development, concert, solo and group work will be presented. Critical evaluation of choreographic dance components through analysis and presentation in the classroom will also be discussed. CSU, UC

DANCE-256 Dance Production Choreography

- 1.5 units SC
- 72 hours laboratory per term
 - Prerequisite: DANCE-246 and DANCE-250 or equivalents
 - Co-requisite: DANCE-257 or equivalent

This is a dance production class with an emphasis on experiential learning by choreographing, staging and rehearsing a student-choreographed dance production. It includes the application of choreographic theory and technique with emphasis on dance as a performing art and participation in the technical and business aspects of a student production. CSU, UC

DANCE-257 Dance Production Choreography - Tech Week

- .5 unit SC
- 36 hours laboratory by arrangement per term
 - Co-requisite: DANCE-256 or equivalent

This is a dance performance course focusing on the role of the choreographer in the presentation of an original dance composition presented to a live audience in a professional theater space. The emphasis is on staging techniques, incorporation of technical theater elements, and performance development. A final dance concert performance of the student's original choreography culminates the term's work. CSU, UC

DANCE-299 Student Instructional Assistant

- .5-3 units SC
- Variable hours
 - Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

DENTAL ASSISTING – DENTL

Joseph Gorga, Dean
Biological and Health Sciences Division
Physical Sciences Building, Room 263

Possible career opportunities

The Diablo Valley College dental assisting program prepares students to work as an essential member of the dental team. Employment opportunities for the graduates include: chair-side assistant, front office administrator, x-ray technician for dental radiation laboratories, agent for dental insurance companies, or laboratory technician for dental laboratories. The DVC dental assisting program is approved by the Dental Board of California and accredited by the Commission on Dental Accreditation of the American Dental Association. Upon graduation, students are eligible to take state and national board examinations to become a licensed Registered Dental Assistant in California (RDA) and a Certified Dental Assistant (CDA).

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in science degree Dental assisting

Students completing the program will be able to...

- A. act as a member of the dental health team and apply professional, ethical and legal principles while functioning in the role of the Registered Dental Assistant (RDA).
- B. assume responsibility for prevention of disease transmission utilizing universal precautions in the work environment to protect those entrusted to their care.
- C. show competence in skills as described in the current California Dental Practice Act. Said professional should perform with a balance of professionalism and sensitivity characteristic of genuine compassionate care.
- D. exhibit knowledge necessary for successful completion of the California Registered Dental Assistant's Examination and the National Certified Dental Assistant's Examination.
- E. apply critical thinking and self-assessment skills to enhance learning, research, patient care, professional growth, and continued competency.
- F. integrate and apply health literacy and culturally competent communication skills to oral health care services, academic endeavors, community projects, and professional activities.

The required dental assisting program classes are taught during the day; however, the general education courses required for the certificate or degree may be taken in the evening or at an alternate location.

The 10-month program is scheduled to begin each fall term in August and the dental assisting courses will be completed by the middle of May. The two terms include classroom instruction as well as clinical experience in the DVC dental clinic, local dental schools and various dental offices.

In addition to the dental assisting classes the program requires nine units of general education that must be completed prior to graduating from the program and applying to take the state license and national examinations.

Entrance into the Diablo Valley College (DVC) Dental Assisting Program is highly competitive with enrollment limited to 24 students. To be eligible for enrollment, applicants must have a high school diploma or its equivalent and successfully pass DENTL-120 Orientation to the Dental Assisting Program, which is offered prior to enrollment for the fall term.

Prior to August 1, students who have successfully passed DENTL-120 and have been chosen to enroll in the program will be required to show: (1) proof of CPR (AHA/Health Care Provider) certification; (2) required immunizations/titers; (3) proof of negative one-step TB test; (4) results of a recent physical examination/screening; (5) results of a certified background check; and (6) results of a certified drug test. Reporting documents will be handed out during the orientation meeting.

To earn an associate in science degree with a major in dental assisting, students must complete each course used to meet a major requirement with a "C" grade or higher and complete all general education requirements as listed in the catalog. Certain courses may satisfy both major and other general education requirements; however, the units are only counted once.

For dental assisting program information contact the Coordinator of Dental Programs, Counseling Office, or DVC website.

<i>program prerequisite:</i>	<i>units</i>
DENTL-120 Orientation to the Dental Assisting Program.....	0.3

Note: It is strongly recommended to complete the required general education courses (*) prior to entering the dental assisting program in the fall term.

<i>major requirements:</i>	<i>units</i>
DENHY-124 Dental Radiography	3
DENHY-290 Transitioning from Student to Dental Professional.....	1
DENTL-171 Oral Facial Anatomy and Body Systems	3.5
DENTL-173 Dental Operative Procedures I.....	3
DENTL-174 Dental Materials and Laboratory Procedures	3
DENTL-175 Infection Control and Theories of Dental Assisting	3
DENTL-180 Dental Office Management	3
DENTL-181 Dental Emergencies, Pharmacology and Oral Pathology.....	2
DENTL-182 Dental Radiography Laboratory	0.5
DENTL-183 Dental Operative Procedures II.....	5
DENTL-184 Clinical Experience.....	7

<i>plus at least 3 units from:</i>	<i>units</i>
ENGL-122* First-Year College Composition and Reading	3
ENGL-122A* First-Year College English for Multilingual Students.....	3

Dental assisting

plus at least 3 units from:

PSYCH-101* Introduction to Psychology	3
PSYCH-122* Psychology in Modern Life.....	3

plus at least 3 units from:

COMM-120* Public Speaking	3
COMM-130* Small Group Communication.....	3

total minimum units for the major 43.3

In addition, DVC GE Areas IC, II and III must be satisfied to complete AS degree requirements.

plus at least 3 units from:

PSYCH-101* Introduction to Psychology	3
PSYCH-122* Psychology in Modern Life.....	3

plus at least 3 units from:

COMM-120* Public Speaking	3
COMM-130* Small Group Communication.....	3

total minimum required units 43.3

Certificate of achievement Dental assisting

Students completing the program will be able to...

- act as a member of the dental health team and apply professional, ethical and legal principles while functioning in the role of the Registered Dental Assistant (RDA).
- assume responsibility for prevention of disease transmission utilizing universal precautions in the work environment to protect those entrusted to their care.
- show competence in skills as described in the current California Dental Practice Act. Said professional should perform with a balance of professionalism and sensitivity characteristic of genuine compassionate care.
- exhibit knowledge necessary for successful completion of the California Registered Dental Assistant's Examination and the National Certified Dental Assistant's Examination.
- apply critical thinking and self-assessment skills to enhance learning, research, patient care, professional growth, and continued competency.
- integrate and apply health literacy and culturally competent communication skills to oral health care services, academic endeavors, community projects, and professional activities.

program prerequisite:

DENTL-120 Orientation to the Dental Assisting Program	0.3
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Note: It is strongly recommended to complete the required general education courses (*) prior to entering the dental assisting program in the fall term.

required courses:

DENHY-124 Dental Radiography	3
DENHY-290 Transitioning from Student to Dental Professional.....	1
DENTL-171 Oral Facial Anatomy and Body Systems.....	3.5
DENTL-173 Dental Operative Procedures I.....	3
DENTL-174 Dental Materials and Laboratory Procedures.....	3
DENTL-175 Infection Control and Theories of Dental Assisting	3
DENTL-180 Dental Office Management	3
DENTL-181 Dental Emergencies, Pharmacology and Oral Pathology.....	2
DENTL-182 Dental Radiography Laboratory.....	0.5
DENTL-183 Dental Operative Procedures II.....	5
DENTL-184 Clinical Experience.....	7

plus at least 3 units from:

ENGL-122* First-Year College Composition and Reading	3
ENGL-122A* First-Year College English for Multilingual Students.....	3

DENTL-110 Overview of the Dental Professions

- 1.5 units P/NP
- 27 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent
 - Note: This course is open to all students

This course provides an overview of the dental professions, with special emphasis on assisting, hygiene and dental technology concepts. Content is designed to be helpful to students considering applying to dental assisting, dental hygiene, or dental technology programs. CSU

DENTL-120 Orientation to the Dental Assisting Program

- .3 unit P/NP
- 6 hours lecture/3 hours laboratory per term
 - Note: Students who complete this course with a (P) grade (75% or higher) will be eligible for selection by lottery for admission into the dental assisting program. Students must submit an official high school diploma or equivalent if they are selected to be a part of the program starting in August. Please see the catalog or website for program information.

This course is designed for all students interested in enrolling into the dental assisting program. The orientation course will provide the student with detailed enrollment information and the health protocol standards for dental assisting students. Emphasis will be placed on laboratory asepsis, infection control and disease transmission. Career pathways of dental assisting, registered dental assisting, professionalism, malpractice insurance and dental assisting organizations will be discussed. Guidelines from the Dental Practice Act rules and regulations will be presented in relationship to the dental assistant, registered dental assistant, and the registered dental assistant in extended functions. An overview of dental terminology, introduction to clinical instrumentation skills and areas of planning and time management for the dental assisting student. CSU

DENTL-150 Topics in Dental Assisting

- .3-4 units SC
- Variable hours

A supplemental course in dental assisting to provide a study of current concepts and methods in dental assisting and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

DENTL-171 Oral Facial Anatomy and Body Systems

3.5 units LR

- 54 hours lecture/36 hours laboratory per term
- Prerequisite: DENTL-120 or equivalent
- Limitation on enrollment: Acceptance to the DVC Dental Assisting program, including current TB Clearance, hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certificate (Basic Life Support for Healthcare Provider with AED).
- Recommended: Eligibility for ENGL-122 or equivalent

This course introduces students to head and neck anatomy, general anatomy and body systems. Emphasis will be on the teeth, their supporting structures, and the respiratory and cardiovascular systems as they relate to monitoring patient sedation. CSU

DENTL-173 Dental Operative Procedures I

3 units LR

- 36 hours lecture/54 hours laboratory per term
- Prerequisite: DENTL-120 or equivalent
- Limitation on enrollment: Acceptance to the DVC Dental Assisting program, including current TB clearance, hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certificate (Basic Life Support for Healthcare Provider with AED).
- Recommended: Eligibility for ENGL-122 or equivalent

Students will be introduced to the principles of chairside assisting. Emphasis is to be placed on operative procedures, which include chairside responsibilities, instrument identification, tray setups, four-handed techniques, and sequences of general dentistry procedures. Identification, care and maintenance of the operatory and equipment will also be presented. CSU

DENTL-174 Dental Materials and Laboratory Procedures

3 units LR

- 36 hours lecture/54 hours laboratory per term
- Prerequisite: DENTL-120 or equivalent
- Limitation on enrollment: Acceptance to the DVC Dental Assisting program, including current TB clearance, hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certificate (Basic Life Support for Healthcare Provider with AED).
- Recommended: Eligibility for ENGL-122 or equivalent

This course introduces students to the study, characteristics, safe manipulation, and use of dental materials, laboratory equipment and instruments in operative and restorative dentistry. Emphasis is placed on infection control, safety standards, and hazard control protocols. CSU

DENTL-175 Infection Control and Theories of Dental Assisting

3 units LR

- 36 hours lecture/54 hours laboratory per term
- Prerequisite: DENTL-120 or equivalent
- Limitation on enrollment: Acceptance into the DVC Dental Assisting program, including current TB clearance, hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certificate (Basic Life Support for Healthcare Provider with AED).
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: This course meets the eligibility requirements for the certificate in Infection Control and the California Dental Practice Act required by the state for unlicensed Dental Assistants.

This course introduces the student to microbiology, infectious diseases, immunity and infection control in the dental office. Topics include documenting medical/dental health histories; taking and recording vital signs; microbiology of dental decay and application of its relationship to the principles of oral hygiene; dental health related diet and nutrition; oral inspection, documentation, and dental charting; orientation to the roles, functions and duties of the members of the dental team. CSU

DENTL-180 Dental Office Management

3 units LR

- 54 hours lecture per term
- Prerequisite: DENTL-171 or equivalent
- Limitation on enrollment: Acceptance to the DVC Dental Assisting program, including current TB clearance, hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certificate (Basic Life Support for Healthcare Provider with AED).
- Recommended: Eligibility for ENGL-122 or equivalent

This course covers front office management duties in the dental profession. These duties include dental staff management and interaction, patient management, written communication, telecommunication, bookkeeping/financial transactions, dental office documents, dental insurance, appointment management systems, dental software, recall systems, inventory systems, and supply ordering. Dental jurisprudence, related ethical concerns, and HIPAA compliance are presented in this course. CSU

DENTL-181 Dental Emergencies, Pharmacology, and Oral Pathology

2 units LR

- 36 hours lecture per term
- Co-requisite: DENTL-175 (may be taken concurrently or previously)
- Limitation on enrollment: Acceptance to the DVC Dental Assisting program, including current TB clearance, hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certificate (Basic Life Support for Healthcare Provider with AED).
- Recommended: Eligibility for ENGL-122 or equivalent

This course prepares students to assist in the management of medical and dental emergencies, including review of legal and ethical responsibilities. Pathology of the hard and soft tissues of the oral cavity and function of pharmacology are also covered. CSU

DENTL-182 Dental Radiography Laboratory

.5 unit LR

- 27 hours laboratory per term
- Prerequisite: DENHY-124 or equivalent
- Limitation of enrollment: Acceptance to the DVC Dental Assisting program, including current TB clearance, hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certificate (Basic Life Support for Healthcare Provider with AED).
- Recommended: Eligibility for ENGL-122 or equivalent

This course emphasizes patient management, radiation safety and infection control procedures in accordance with Occupational and Safety and Health Administration (OSHA) and Center For Disease Control (CDC) guidelines and regulations from the California Dental Practice Act (DPA). The laboratory and clinical experiences will allow students to enhance the efficiency and quality of their radiographic techniques. Students will perform, evaluate, and interpret various types of intra-oral and extra-oral radiographs using advanced principles and practices of dental radiography with emphasis on technique and diagnostic quality of dental x-rays. CSU

DENTL-183 Dental Operative Procedures II

5 units LR

- 54 hours lecture/108 hours laboratory per term
- Prerequisite: DENTL-173 or equivalent
- Limitation on enrollment: Acceptance to the DVC Dental Assisting program, including current TB clearance, hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certificate (Basic Life Support for Healthcare Provider with AED).
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents instruction in assisting and instrumentation for the following dental specialties: orthodontics, endodontics, periodontics, pediatric dentistry, prosthodontics, oral maxillofacial surgery, and public health. The theory and practice of coronal polishing and dental sealants are included. Completion of a dental health community service project is required. CSU

DENTL-184 Clinical Experience

7 units LR

- 27 hours lecture/300 hours laboratory per term
- Prerequisite: DENTL-174 or equivalent
- Limitation on enrollment: Acceptance to the DVC Dental Assisting program, including current TB Clearance, hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certificate (Basic Life Support for Healthcare Provider with AED).
- Recommended: Eligibility for ENGL-122 or equivalent

This course offers students supervised clinical experience in an externship environment. Students will provide chairside dental assisting in general practice, specialty clinics, and dental schools. CSU

DENTL-299 Student Instructional Assistant

.5-3 units SC

- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

DENTAL HYGIENE – DENHY

Joseph Gorga, Dean

Biological and Health Sciences Division

Physical Sciences Building, Room 263

Possible career opportunities

The Diablo Valley College (DVC) dental hygiene program prepares students to work as an essential member of the dental team. The dental hygiene program provides an excellent path for those interested in a variety of positions in the dental field. Working in a private dental office continues to be the primary place of employment for dental hygienists. For today's dental hygiene professional, there are many other career pathways to explore including providing dental hygiene services for patients in hospitals, nursing homes, and public health clinics.

With additional education, dental hygienists can choose to pursue a teaching career in dental education programs, a career in research, public advocacy, or as a sales representative for an oral healthcare company.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in science degree

Dental hygiene

Students completing the program will be able to...

- synthesize knowledge from all branches of learning to provide preventative, educational, collaborative, and therapeutic dental hygiene care for individuals and groups in a variety of settings.
- develop a desire and ability to provide dental hygiene care applying the highest morale, ethical and legal principals including those outlined by the American Dental Hygienists' Association and the American Dental Association.
- function in the professional dental hygiene roles of the clinician, health promoter/educator and change agent.
- develop and maintain professional competence founded in evidence based decision-making and continued education while promoting personal and professional growth.
- promote client and community satisfaction with the quality of the dental hygiene education and care process provided by the program.

This is a two-year program of classroom instruction and clinical experience which prepares students to perform the educational, clinical, and laboratory responsibilities of a dental hygienist. The DVC dental hygiene program is accredited by the American Dental Association Commission on Dental Accreditation (CODA) and approved by the Dental Hygiene Committee of California (DHCC). The program prepares students to take written and clinical licensing exams. The Dental Hygiene curriculum requires two consecutive academic years including summer. Entrance into the DVC Dental Hygiene program is highly competitive with enrollment limited to 20 students.

To be eligible for enrollment into the dental hygiene program, applicants must complete the specified prerequisite courses prior to submitting an application. All science prerequisite courses must be taken within the last seven years. The applicant must have an overall GPA of 3.0 or higher in all science courses, English, and communication studies. Applications for acceptance to the dental hygiene program are generally accepted in January through mid-February for entrance during the following summer term.

Once accepted into the program students must successfully complete the orientation course DENHY-101 and by August 1st must show: (1) proof of CPR (AHA/Health Care Provider) certification; (2) required immunizations/titers; (3) proof of negative one-step TB test; (4) results of a recent physical examination/screening; (5) results of a certified background check; and (6) results of a certified drug test. Reporting documents will be handed out during the orientation meeting.

Students who successfully complete the program earn an associate degree in dental hygiene. Associate degree requirements include prerequisite courses, general education courses, and the required dental hygiene program requirements listed below. Students must achieve a "C" grade or higher in each of the degree conferring courses. Dental hygiene required courses are only available during the day. However, required general education courses are available in the day or evening. Students must complete the required general education course prior to beginning the program. For dental hygiene program information and an application packet, contact the Coordinator of Dental Programs, the Counseling office or the DVC website.

major requirements: units

<i>program prerequisites or equivalents:</i>	
BIOSC-139* Human Anatomy.....	5
BIOSC-140* Human Physiology	5
CHEM-108* Introductory Chemistry.....	4
CHEM-109* Introduction to Organic and Biochemistry	4
ENGL-122 First-Year College Composition and Reading	3
or	
ENGL-122A First-Year College Composition and Reading for Multilingual Students	3
NUTRI-160* Nutrition: Science and Applications	3

plus at least 4 units from:

BIOSC-119* Fundamentals of Microbiology	4
BIOSC-146* Principles of Microbiology	5

Plus all units from:**

MATH-119 Beginning and Intermediate Algebra	4
SOCIO-120 Introduction to Sociology.....	3

plus at least 3 units from:**

COMM-120* Public Speaking	3
COMM-130* Small Group Communication.....	3

plus at least 3 units from:**

PSYCH-101 Introduction to Psychology.....	3
PSYCH-122 Psychology in Modern Life.....	3

All overall GPA of 3.0 or higher in science, English, and communication studies is required for program admission.

*Science courses must have been completed within the past seven years.

**Course substitutions for general education requirements require department chair approval. See a counselor or program advisor.

total minimum required units - program prerequisites 41

program requirements:

DENHY-101 Dental Hygiene Orientation.....	0.5
DENHY-120 Introduction to Dental Hygiene: Theory, Process of Care and Practice	1
DENHY-121 Introduction to Comprehensive Clinical Dental Hygiene Care	5
DENHY-122 Clinical Dental Hygiene	5
DENHY-123 Oral Health Care Education	2
DENHY-124 Dental Radiography	3
DENHY-125 Head and Neck Anatomy, Histology, and Embryology	4
DENHY-126 Dental Morphology.....	2
DENHY-127 Infection Control: Theory, Practice and Communication	2
DENHY-128 Periodontics for the Dental Hygienist.....	2
DENHY-129 Contemporary Dental Materials for the Dental Hygienist	1.5
DENHY-131 Expanded Functions for the Dental Hygienist..	2
DENHY-133 Behavioral Foundations and Communication Skills	1
DENHY-134 Evaluation of Scientific Research	2
DENHY-135 Pharmacology for the Dental Hygienist.....	3
DENHY-136 Dental Hygiene Care of Patients with Special Needs	1
DENHY-219 Pathology	2
DENHY-223 Ethics, Jurisprudence, and Practice Management	2
DENHY-225 Community Oral Health.....	1
DENHY-226 Community Oral Health Service Learning.....	1.5
DENHY-227 Advanced Periodontics and Dental Hygiene Topics	2
DENHY-230 Advanced Clinical Dental Hygiene Care I.....	6
DENHY-231 Advanced Clinical Dental Hygiene Care II.....	6.5
DENHY-290 Transitioning from Student to Dental Professional.....	1

total minimum required units - program 59
total minimum required units - program and program prerequisites 100

NOTE: DVC GE Area IB and III must also be completed to satisfy associate degree requirements.

Dental hygiene

The following courses are open only to those accepted into the dental hygiene program.

DENHY-101 Dental Hygiene Orientation

.5 unit P/NP

- 6 hours lecture/12 hours laboratory per term
- *Limitation on enrollment: Provisional acceptance into the Diablo Valley College Dental Hygiene program (or as an alternate) is required for registration in this course.*
- *Note: Refer to the DVC catalog or Dental Hygiene Program website for information concerning program prerequisites and application process.*

This course is designed to provide an overview of dental hygiene curriculum. Time and financial commitments necessary to be successful in the dental hygiene program will be emphasized. CSU

DENHY-120 Introduction to Dental Hygiene: Theory, Process of Care and Practice

1 unit LR

- 18 hours lecture per term
- *Prerequisite: DENHY-101 or equivalent*
- *Limitation on enrollment: Acceptance to the Diablo Valley College Dental Hygiene program includes current TB clearance, hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certificate (basic life support for healthcare provider with automated external defibrillators [AED])*

This course provides an introduction to the evolving profession of dental hygiene and focuses on the conceptual framework for dental hygiene and the process of care for the promotion of oral health and wellness. Topics include the history of the dental hygiene profession, institutional accreditation and individual licensing, current dental health trends, health promotion strategies and electronic portfolio development. CSU

DENHY-121 Introduction to Comprehensive Clinical Dental Hygiene Care

5 units LR

- 54 hours lecture/108 hours laboratory per term
- *Prerequisite: DENHY-101 or equivalent*
- *Limitation on enrollment: Acceptance to the Diablo Valley College Dental Hygiene program, including current TB Clearance, Hepatitis immunization and/or titer, Tetanus vaccination, malpractice insurance, and current CPR certificate (Basic Life Support for Healthcare Provider with Automated External Defibrillator [AED]). Certified background check and negative drug test required as a condition of enrollment in this course.*

This course provides an introduction to the application of the dental hygiene process of care guided by the human needs conceptual model. The course includes clinical experiences focusing on assessment procedures related to comprehensive dental hygiene care. Instrumentation skill development with an emphasis on safety for the client as well as the clinician will also be addressed. CSU

DENHY-122 Clinical Dental Hygiene

5 units LR

- 45 hours lecture/144 hours laboratory per term
- *Prerequisite: DENHY-121 or equivalent*
- *Limitation on enrollment: Acceptance to the Diablo Valley College Dental Hygiene program, including current TB Clearance, Hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certification (Basic Life Support for the Healthcare Provider with Automated External Defibrillator [AED]).*

This course provides an introduction to clinical dental hygiene practice. Instruction and experiences will emphasize client assessments, dental hygiene diagnosis, treatment planning implementation, and evaluation of dental hygiene care. Application of knowledge, critical thinking, and basic clinical skills acquired in previous dental hygiene courses will be emphasized. CSU

DENHY-123 Oral Health Care Education

2 units LR

- 36 hours lecture per term
- *Prerequisite: DENHY-101 and NUTRI-160 or equivalents*
- *Limitation on enrollment: Acceptance to the Diablo Valley College Dental Hygiene program, including current TB Clearance, Hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certification (Basic Life Support for the Healthcare Provider with Automated External Defibrillator [AED]).*

This course provides an introduction to the principles, theory, and practice of oral hygiene care. The focus is to develop educational techniques and technical skills that can be used to assist individuals and groups in becoming integrally involved in their dental/oral care. CSU

DENHY-124 Dental Radiography

3 units LR

- 36 hours lecture/54 hours laboratory per term
- *Prerequisite: DENHY-101 or DENTL-120 or equivalent*
- *Limitation on enrollment: Acceptance to the Diablo Valley College Dental Assisting or Dental Hygiene program, including current TB Clearance, Hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certification (Basic Life Support for the Healthcare Provider with Automated External Defibrillator [AED]).*

This course examines the fundamentals of dental radiography. Topics include history, principles, legal considerations, and radiation safety. Clinical applications include exposure techniques, film processing, mounting and interpreting dental radiographs and identifying errors in technique and their methods of correction. CSU

DENHY-125 Head and Neck Anatomy, Histology, and Embryology

4 units LR

- 54 hours lecture/54 hours laboratory per term
- Prerequisite: DENHY-101, BIOSC-139 and BIOSC-140 or equivalents
- Limitation on enrollment: Acceptance to the Diablo Valley College Dental Hygiene program, including current TB Clearance, Hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certification (Basic Life Support for the Healthcare Provider with Automated External Defibrillator [AED]).

This course provides an introduction to the structure and functions of the head and neck with special attention given to the oral cavity. General micro-anatomy of the tissue and the embryological development of the head and neck are covered. CSU

DENHY-126 Dental Morphology

2 units LR

- 36 hours lecture per term
- Prerequisite: DENHY-101 or equivalent
- Limitation on enrollment: Acceptance to the Diablo Valley College Dental Hygiene program, including current TB Clearance, Hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certification (Basic Life Support for the Healthcare Provider with Automated External Defibrillator [AED]).

This course provides an introduction to the structures and forms of the human dentition. Aspects related to dental hygiene care such as root morphology, restorative charting, occlusion and dental anomalies are emphasized. CSU

DENHY-127 Infection Control: Theory, Practice and Communication

2 units LR

- 36 hours lecture per term
- Prerequisite: DENHY-101 and BIOSC-119 or BIOSC-146 or equivalents
- Limitation on enrollment: Acceptance to the Diablo Valley College Dental Hygiene program, including current TB Clearance, Hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certification (Basic Life Support for the Healthcare Provider with Automated External Defibrillator [AED]).

This course provides an overview of the prevention of disease and disease transmission in the dental environment. This course will include infection control principles, protocols, Center For Disease Control (CDC) and Occupational Safety and Health Administration (OSHA) recommendations/regulations, and an introduction to effective communication techniques as related to infection control and dental hygiene care delivery. CSU

DENHY-128 Periodontics for the Dental Hygienist

2 units LR

- 36 hours lecture per term
- Prerequisite: DENHY-101 or equivalent
- Limitation on enrollment: Acceptance to the Diablo Valley College Dental Hygiene program, including current TB Clearance, Hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certification (Basic Life Support for the Healthcare Provider with Automated External Defibrillator [AED]).

This course presents a structured study of the discipline of periodontics with a focus on the biological, behavioral and clinical aspects of the periodontal diseases. Topics include normal vs. diseased periodontal structures, etiology, risk factors, classification, and epidemiology. Students will apply periodontal assessment techniques leading to the development of appropriate strategies for planning preventative care, initial treatment and maintenance procedures for the periodontal diseases. Students are introduced to evidence-based decision making as they apply course content to simulated cases. CSU

DENHY-129 Contemporary Dental Materials for the Dental Hygienist

1.5 units LR

- 18 hours lecture/36 hours laboratory per term
- Prerequisite: DENHY-101 or equivalent
- Limitation on enrollment: Acceptance to the Diablo Valley College Dental Hygiene program, including current TB Clearance, Hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certification (Basic Life Support for the Healthcare Provider with Automated External Defibrillator [AED]).

This course presents the fundamentals of dental materials. Basic science, behavior and manipulation of dental materials in a framework that enables adaptation to the rapidly evolving array of new dental materials and techniques in the professional arena will be covered. CSU

DENHY-131 Expanded Functions for the Dental Hygienist

2 units LR

- 18 hours lecture/54 hours laboratory per term
- Prerequisite: DENHY-127 or equivalent; CHEM-108 and CHEM-109 or equivalent
- Limitation on enrollment: Acceptance to the Diablo Valley College Dental Hygiene program, including current TB Clearance, Hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certification (Basic Life Support for the Healthcare Provider with Automated External Defibrillator [AED]).

This course presents dental hygiene advanced clinical functions including clinical practice in administration of local anesthetics, topical anesthetic agents, nitrous oxide/oxygen analgesia and soft tissue curettage. CSU

DENHY-133 Behavioral Foundations and Communications Skills

1 unit LR

- 18 hours lecture per term
- Prerequisite: DENHY-101 or equivalent

This course introduces students to principles drawn from the behavioral sciences to guide dental hygienist-client communication. The basic components of the communication process, verbal and nonverbal communication, therapeutic and non-therapeutic communication techniques, listening skills, major theories of motivation, and the interrelationship between teaching, learning, and communication will be covered. Focus is on the modification of teaching, learning, and communication techniques appropriate for clients throughout the life span and development of abilities to interact with all members of our multicultural society. CSU

DENHY-134 Evaluation of Scientific Research

2 units LR

- 36 hours lecture per term
- Prerequisite: DENHY-120 and ENGL-122 or equivalents
- Limitation on enrollment: Acceptance to the Diablo Valley College Dental Hygiene program, including current TB Clearance, Hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certification (Basic Life Support for the Healthcare Provider with Automated External Defibrillator [AED]).

This course is designed to familiarize the student with scientific research methodology and skills to critically review, evaluate and interpret scientific research and professional literature. CSU

DENHY-135 Pharmacology for the Dental Hygienist

3 units LR

- 54 hours lecture per term
- Prerequisite: DENHY-101 or equivalent
- Limitation on enrollment: Acceptance to the Diablo Valley College Dental Hygiene program, including current TB Clearance, Hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certification (Basic Life Support for the Healthcare Provider with Automated External Defibrillator [AED]).

This course introduces the discipline of pharmacology. The focus is on categorizing drugs by therapeutic use and understanding the physiologic basis for drug action and interaction. Client case scenarios are introduced to allow students to apply course content to simulated clinical situations. CSU

DENHY-136 Dental Hygiene Care for Clients with Special Needs

1 unit LR

- 18 hours lecture per term
- Prerequisite: DENHY-101 or equivalent
- Limitation on enrollment: Acceptance to the Diablo Valley College Dental Hygiene program, including current TB Clearance, Hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certification (Basic Life Support for the Healthcare Provider with Automated External Defibrillator [AED]).

This course focuses on goals, principles, and treatment modification of comprehensive dental hygiene care for clients with special needs. CSU

DENHY-150 Topics in Dental Hygiene

.3-4 units LR

- Variable hours
- Prerequisite: DENHY-101 or equivalent
- Limitation on enrollment: Acceptance to the Diablo Valley College Dental Hygiene program, including current TB Clearance, Hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certification (Basic Life Support for the Healthcare Provider with Automated External Defibrillator [AED]).

This course is a supplemental class in dental hygiene to provide a study of current concepts and problems in dental hygiene and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

DENHY-219 Pathology

2 units LR

- 36 hours lecture per term
- Prerequisite: DENHY-120 or equivalent
- Limitation on enrollment: Acceptance to the Diablo Valley College Dental Hygiene program, including current TB Clearance, Hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certification (Basic Life Support for the Healthcare Provider with Automated External Defibrillator [AED]).

This course provides an introduction to the principles of general and oral pathology. The focus is to gain skill in recognizing pathologic conditions and to develop an understanding of disease mechanisms, the diagnostic process, referral, and treatment options. CSU

DENHY-223 Ethics, Jurisprudence, and Practice Management

2 units LR

- 36 hours lecture per term
- Prerequisite: DENHY-120 or equivalent
- Limitation on enrollment: Acceptance to the Diablo Valley College Dental Hygiene program, including current TB Clearance, Hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certification (Basic Life Support for the Healthcare Provider with Automated External Defibrillator [AED]).

This course examines jurisprudence, ethics, and practice management as these concepts relate to dental hygiene care and the dental profession. The importance of professional conduct, continuous quality improvement, self-assessment and peer evaluation are emphasized. Management and leadership skills essential for dental hygienists to participate in the practice management and administration of a dental hygiene practice will be covered. CSU

DENHY-225 Community Oral Health

1 unit LR

- 18 hours lecture per term
- Prerequisite: DENHY-120 or equivalent

This course is designed to focus on oral health promotion and disease prevention for a variety of populations with diverse oral health needs. It provides students with an introduction to the dental care delivery system and the significant social, political, cultural and economic forces directing the system. CSU

DENHY-226 Community Oral Health Service Learning

1.5 unit LR

- 18 hours lecture/27 hours laboratory by arrangement per term
- Prerequisite: DENHY-134 and DENHY-225 or equivalents
- Limitation on enrollment: Acceptance to the Diablo Valley College Dental Hygiene program, including current TB Clearance, Hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certification (Basic Life Support for the Healthcare Provider with Automated External Defibrillator [AED]).

This course provides an introduction to service-learning experiences related to the study of oral health promotion and disease prevention for groups of people. The process of community health program development including assessment, planning, implementation and evaluation will be emphasized. CSU

DENHY-227 Advanced Periodontics and Dental Hygiene Topics

2 units LR

- 36 hours lecture per term
- Prerequisite: DENHY-120 or equivalent
- Limitation on enrollment: Acceptance to the Diablo Valley College Dental Hygiene program, including current TB Clearance, Hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certification (Basic Life Support for the Healthcare Provider with Automated External Defibrillator [AED]).

This course presents advanced concepts of dental hygiene theory, comprehensive dental hygiene assessment, and treatment planning. Topics will include evidence-based decision making, powered instrumentation, dentinal hypersensitivity, periodontal pharmacology/chemotherapies to control disease activity, advanced instrumentation techniques and root morphology, sharpening skills, periodontal/restorative relationships, evolving technology for evaluation of oral lesions, and practice with comprehensive dental hygiene treatment planning. CSU

DENHY-230 Advanced Clinical Dental Hygiene Care I

6 units LR

- 18 hours lecture/279 hours laboratory per term
- Prerequisite: DENHY-120 and DENHY-127 or equivalents
- Limitation on enrollment: Acceptance to the Diablo Valley College Dental Hygiene program, including current TB Clearance, Hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certification (Basic Life Support for the Healthcare Provider with Automated External Defibrillator [AED]).

This course continues and expands development of dental hygiene skills in preventive therapy, oral prophylaxis, periodontal initial preparation, periodontal maintenance therapy, scaling and root debridement procedures, pain control and gingival curettage as well as adjunct therapeutic skills. Dental hygiene assessment (diagnostic) and dental hygiene care planning skills will continue to be developed leading to clinical competency. Techniques in the use and interpretation of radiographs, infection control and office procedures will be developed. CSU

DENHY-231 Advanced Clinical Dental Hygiene Care II

6.5 units LR

- 18 hours lecture/306 hours laboratory per term
- Prerequisite: DENHY-120 and DENHY-127 or equivalents
- Limitation on enrollment: Acceptance to the Diablo Valley College Dental Hygiene program, including current TB Clearance, Hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certification (Basic Life Support for the Healthcare Provider with Automated External Defibrillator [AED]).

This course is a continuation of the advanced clinical dental hygiene care course designed to lead toward the achievement of entry level clinical competence in preventive oral health care, oral prophylaxis, initial therapy and supportive periodontal therapy. Students will become entry level competent in scaling and debridement procedures, administration of local anesthetics and nitrous-oxide sedation, and gingival curettage as well as adjunct therapeutic skills such as the local placement of antimicrobial agents. Dental hygiene assessment, diagnosis (based on human need theory) and dental hygiene care planning skills will be refined. Techniques in use and interpretation of radiographs, infection control and time management will be further developed. CSU

DENHY-290 Transitioning from Student to Dental Professional

1 unit SC

- 18 hours lecture per term
- Prerequisite: DENHY-120 or DENTL-181 or equivalent
- Limitation on enrollment: Acceptance to the Diablo Valley College Dental Assisting or Dental Hygiene program, including current TB Clearance, Hepatitis immunization and/or titer, tetanus vaccination, malpractice insurance, and current CPR certification (Basic Life Support for the Healthcare Provider with Automated External Defibrillator [AED]).

This course will prepare students to transition into professional practice in dentistry. Marketing skills, resume and portfolio preparation, interviewing techniques, methods of compensation, malpractice insurance, and navigating licensure applications are emphasized. CSU

DENHY-295 RDH Examination Preparation

.5 unit P/NP

- 27 hours laboratory per term
- Prerequisite: DENHY-231 or equivalent

Advanced clinical dental hygiene experience with emphasis on preparation for the Registered Dental Hygienist (RDH) Examination: including patient selection, preparation, self/peer evaluation to enhance performance on the State of California license examination.

DENHY-298 Independent Study

- .5-3 units SC
- Variable hours
- Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

DENHY-299 Student Instructional Assistant

- .5-3 units SC
- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

The program in technical theater prepares students for an entry-level career in community and professional theater. Careers may include scene shop technician, property artisan, electrician, costume technician, makeup technician, scenic artist, or stage manager. The program also prepares students who wish to expand their careers to entry-level technical video and film positions, as well as entry into a four-year university or professional school.

While this program of study is not designed as a transfer program, selected courses in the program meet lower division requirements for the bachelor of arts degree at many California State University and University of California campuses. Consult with department faculty and a college counselor for more information.

Students must complete each course used to meet a major or certificate requirement with a "C" grade or higher, maintain an overall GPA of 2.5 or higher in the coursework required for the certificate and/or degree. Students who wish to apply for the associate degree must also complete general education requirements as listed in the catalog.

The certificate program can also be used as the "major" that is required for the associate in arts degree in technical theater at Diablo Valley College.

<i>major requirements:</i>		<i>units</i>
DRAMA-111	Introduction to Lighting Design	3
DRAMA-112	Introduction to Stage Makeup	3
DRAMA-139	Introduction to Theater	3
DRAMA-200	Introduction to Technical Theater	3
DRAMA-201	Technical Theater Laboratory	2-4

<i>plus at least 3 units from:</i>		
DRAMA-122	Basic Principles of Acting	3
DRAMA-123	Intermediate Principles of Acting	3
DRAMA-124	Advanced Principles of Acting	6
DRAMA-127	Auditioning Techniques	3

<i>plus at least 3 units from:</i>		
DRAMA-295	Occupational Work Experience Education in DRAMA	1-4
DRAMA-296	Internship in Occupational Work Experience Education in DRAMA	1-4

<i>plus at least 9 units from:</i>		
ARCHI-130	Architectural Graphics I	3
ART-105	Drawing I	3
ART-106	Drawing and Color	3
ART-108	Figure Drawing II	3
ARTDM-130	Introduction to Digital Audio	3
ARTDM-149	Fundamentals of Digital Video	3
ARTDM-160	3D Modeling and Animation I	3
DRAMA-113	Introduction to Costume Design	3
DRAMA-130	Principles of Directing	3
DRAMA-230	Directing Projects	1-2
DRAMA-260*	Technical Theater Practicum	1-2
DRAMA-270*	Stage Production	1-2
DRAMA-298	Independent Study	0.5-3
ENGTC-119	Introduction to Technical Drawing	3
ENGTC-126	Computer Aided Design and Drafting - AutoCAD	3
FTVE-120	Introduction to TV Studio Production	3
FTVE-160	Introduction to Film Production	3
MUSX-172	Introduction to Electronic Music and MIDI	3

total minimum units for the major 29

**Note: Students may apply either DRAMA-260 or DRAMA-270 to major requirements.*

DRAMA - DRAMA

Toni Fannin, Dean
Applied and Fine Arts Division
Business and Foreign Language Building, Room 204

Possible career opportunities

Most careers related to theatre require education beyond the associate degree, however, an understanding and mastery of technical theatre skills provides some preparation for work in local community and professional theatre. Possible career options include: set designer, model builder, makeup artist, lighting designer, stage manager, scenic artist, set builder, set carpenter, set painter, stage technician, sound technician, prop maker, and lighting operator.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

**Associate in arts degree
Technical theater**

Students completing the program will be able to...

- A. exhibit the unique collaborative skills necessary to participate in a theater community.
- B. develop the basic skills required in the craft of theater.
- C. demonstrate the ability to articulate the creative process of theatrical tasks.

Associate in arts in theater arts for transfer

Students completing the program will be able to...

- demonstrate skill in performing or crewing a production.
- analyze historical and contemporary theatrical literature.

The associate in arts in theater arts for transfer (AA-T) at Diablo Valley College prepares students to move into a program at a CSU university leading to a baccalaureate degree in theater arts. Completion of a B.A. in theater arts can lead to professional careers in acting, technical theater, stage management, stage direction, and design. In addition, many students find the completion of a theatre arts degree a complementary preparation for careers in education, law, communications, and psychology.

The associate in arts in theater arts for transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education-pattern (CSU GE); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for oral communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Students must complete each course used to meet a major requirement with a "C" grade or higher. Some courses in the major satisfy both major and CSU GE/IGETC general education requirements; however, the units are only counted once toward the 60-unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

<i>major requirements:</i>		<i>units</i>
DRAMA-122	Basic Principles of Acting	3
DRAMA-139	Introduction to Theater	3

<i>plus at least 3 units from:</i>		
DRAMA-201	Technical Theater Laboratory	2-4*
DRAMA-270	Stage Production	1-2*

<i>plus at least 9 units from:</i>		
DRAMA-111	Introduction to Lighting Design	3
DRAMA-112	Introduction to Stage Makeup	3
DRAMA-113	Introduction to Costume Design.....	3
DRAMA-123	Intermediate Principles of Acting.....	3
DRAMA-200	Introduction to Technical Theater.....	3

or, if not used above:

DRAMA-201	Technical Theater Laboratory	2-4*
DRAMA-270	Stage Production	1-2*

total minimum units for the major 18

**Note: a maximum of 3 units may be taken from each of these courses.*

Certificate of achievement

Technical theater

Students completing the program will be able to...

- exhibit the unique collaborative skills necessary to participate in a theater community.
- develop the basic skills required in the craft of theater.
- demonstrate the ability to articulate the creative process of theatrical tasks.

<i>required courses:</i>		<i>units</i>
DRAMA-111	Introduction to Lighting Design	3
DRAMA-112	Introduction to Stage Makeup	3
DRAMA-139	Introduction to Theater	3
DRAMA-200	Introduction to Technical Theater.....	3
DRAMA-201	Technical Theater Laboratory.....	2-4

<i>plus at least 3 units from:</i>		
DRAMA-122	Basic Principles of Acting	3
DRAMA-123	Intermediate Principles of Acting.....	3
DRAMA-124	Advanced Principles of Acting.....	6
DRAMA-127	Auditioning Techniques.....	3

<i>plus at least 3 units from:</i>		
DRAMA-295	Occupational Work Experience Education in DRAMA.....	1-4
DRAMA-296	Internship in Occupational Work Experience Education in DRAMA.....	1-4

<i>plus at least 9 units from:</i>		
ARCHI-130	Architectural Graphics I	3
ART-105	Drawing I	3
ART-106	Drawing and Color	3
ART-108	Figure Drawing II	3
ARTDM-130	Introduction to Digital Audio	3
ARTDM-149	Fundamentals of Digital Video.....	3
ARTDM-160	3D Modeling and Animation I	3
DRAMA-113	Introduction to Costume Design.....	3
DRAMA-130	Principles of Directing	3
DRAMA-230	Directing Projects.....	1-2
DRAMA-260*	Technical Theater Practicum	1-2
DRAMA-270*	Stage Production	1-2
DRAMA-298	Independent Study.....	0.5-3
ENGTC-119	Introduction to Technical Drawing.....	3
ENGTC-126	Computer Aided Design and Drafting - AutoCAD.....	3
FTVE-120	Introduction to TV Studio Production.....	3
FTVE-160	Introduction to Film Production.....	3
MUSX-172	Introduction to Electronic Music and MIDI.....	3

total minimum required units 29

**Note: Students may apply either DRAMA-260 or DRAMA-270 to certificate requirements.*

Limitations on enrollment

Effective fall term 2013, changes to the regulations that govern community college enrollments placed limitations on the number of courses that students may take in certain disciplines within the Contra Costa Community College District. The charts below indicate which Diablo Valley College (DVC) courses are assigned to groups of courses (“families”) for which limitations have been imposed. Certain courses within certain “families” may be repeated (see catalog description), however, students are limited to four enrollments within the family. Certain DVC courses are equivalent to courses at Los Medanos College and Contra Costa College. An enrollment in an equivalent course at one of those colleges will count toward the allowable four enrollments within the family.

NOTE: Diablo Valley College may offer experimental or topics courses. When appropriate, based on content, such courses will be assigned to a “family” and that enrollment will be counted as an experience within the “family”.

DRAMA

Family: Acting

- DRAMA-122 Basic Principles of Acting
- DRAMA-123 Intermediate Principles of Acting
- DRAMA-124 Advanced Principles of Acting
- DRAMA-125 Advanced Styles in Scene Study:
From Shakespeare to Shaw
- DRAMA-155SC Stage Conflict
- DRAMA-155SH Solving Shakespeare
- DRAMA-155TH Theater for Social Change
- DRAMA-155XX Advanced Acting Styles in Early Modern Theater

Family: Audition

- DRAMA-126 Audition and Preparation for the Camera
- DRAMA-127 Audition Techniques
- DRAMA-128 Auditioning and Preparation for the Camera II
- DRAMA-129 Theatre Festival Competition
- DRAMA-155KC KCAC Theater Fest Competition

Family: Directing

- DRAMA-130 Principles of Directing
- DRAMA-230 Directing Projects
- DRAMA-155AC Directing the One-Act
- DRAMA-155DV Devised Theater

Family: Musical Theater

- DRAMA-150 Children’s Theater
- DRAMA-170 Introduction to Musical Theater I
- DRAMA-171 Musical Theater II
- DRAMA-155VA Acting in Musicals

Family: Performance Acting

- DRAMA-270 Stage Production

Family: Performance - Musical Theater

- DRAMA-275 Musical Theater Production

Family: Production/Technical Theater

- DRAMA-201 Technical Theater Laboratory
- DRAMA-202 Fundamentals of Stage Production -
Technical Theater
- DRAMA-260 Technical Theater Practicum

DRAMA-111 Introduction to Lighting Design

3 units SC
 • 54 hours lecture per term

This course will present the theory and techniques of stage lighting including the function of lighting equipment, the operation of basic dimmer systems, and the creation of lighting designs for selected scenes from plays. C-ID THTR 173, CSU, UC

DRAMA-112 Introduction to Stage Makeup

3 units SC
 • 54 hours lecture per term

This course presents the study the aesthetics, materials, and procedures of stage makeup. Corrective makeup, aging techniques, makeups which are inline with a play’s given circumstances, character makeup applications, makeups which accurately depict historical eras and cultural demands, and abstract/linear makeup design projects will be covered. C-ID THTR 175, CSU, UC

DRAMA-113 Introduction to Costume Design

3 units SC
 • 36 hours lecture/27 hours laboratory/27 hours laboratory
 by arrangement per term

This course is an introduction to theatrical costume design. Topics include beginning construction theories, techniques, basic applications and practices. Various fabrics, basic patterning, wardrobe plotting, and historical styles will be covered. C-ID THTR 174, CSU, UC

DRAMA-114 Script Analysis

3 units SC
 • 54 hours lecture per term

This course explores the analysis of play scripts. Consideration is given to the historical and cultural context of various kinds of scripts, the bearing of technological change on the way script is understood, genre and form, narrative and plot analysis, linguistic analysis, interpreting stage directions, and identification of main themes. C-ID THTR 114, CSU, UC

DRAMA-122 Basic Principles of Acting

3 units SC
 • 54 hours lecture per term

This course focuses on beginning acting fundamentals with an emphasis on the important elements necessary for scene study and the heightening and focusing of physical and vocal energy. Students will practice incorporating movement, memorization, vocal techniques, and character work for the stage. C-ID THTR 151, CSU, UC

DRAMA-123 Intermediate Principles of Acting

3 units SC

- 54 hours lecture per term
- Recommended: DRAMA-122 or equivalent

This course builds on the basic acting skills from DRAMA-122. The focus is on more complex elements in scene study, character development, and developing heightened physical and vocal energies. Students will practice personalization techniques for application in class and performance. C-ID THTR 152, CSU, UC

DRAMA-124 Advanced Principles of Acting

6 units SC

- 108 hours lecture per term
- Prerequisite: DRAMA-123 or equivalent
- Limitation on enrollment: Audition required; see schedule of classes for specific days and times.

This course is a study of advanced acting with extensive focus on selected scenes from contemporary realism. The course covers an organic approach to acting based on the principles of Constantin Stanislavski. Special emphasis is placed on script analysis, personalization, and intensive listening and receptivity work with partners. CSU, UC

DRAMA-125 Advanced Styles in Scene Study: From Shakespeare to Shaw

6 units SC

- 108 hours lecture per term
- Prerequisite: DRAMA-124 or equivalent
- Limitation on enrollment: Audition required; see schedule of classes for specific days and times.

This course applies the skills and techniques learned in DRAMA-124 to a range of different theatrical genres and styles. Students will analyze, prepare, and perform scenes from a wide variety of historical periods and genres, which may include: Classical, Restoration, Theater of the Absurd, and Early Modernism. This course will help the serious drama student prepare for a career in the competitive, professional theater. CSU, UC

DRAMA-126 Auditioning and Preparation for the Camera

3 units SC

- 54 hours lecture per term
- Recommended: DRAMA-123 or equivalent

This course covers practical training and experience in auditioning and working on camera for the actor. Close attention will be paid to adapting acting techniques that have special application to working in television and film. CSU, UC

DRAMA-127 Auditioning Techniques

3 units SC

- 54 hours lecture per term
- Recommended: DRAMA-122 or equivalent

This course covers the elements and techniques of auditioning. Topics include monologue selection and styles, cold reading, actor's preparation, research, resume development, and practical application of acting techniques for audition purposes. Students will also prepare for college, community and professional theater auditions and create a portfolio of audition material. CSU

DRAMA-128 Auditioning and Preparation for the Camera II

3 units SC

- 54 hours lecture per term
- Prerequisite: DRAMA-126 or equivalent
- Recommended: DRAMA-123 or equivalent

This course will continue to build skills learned in DRAMA-126 utilizing more advanced techniques for auditioning for television and film. Students will use scripts from a variety of film and television styles, explore techniques such as: script analysis for camera work, continuity of takes, hitting a mark, finding and working in key light, and using various frame sizes such as long, medium, and close-up shots. This course will also examine the business side of the film and television industry with emphasis on auditioning, talent agents, casting directors, and demo reels. CSU

DRAMA-129 Theatre Festival Competition

2 units SC

- May be repeated three times
- 14 hours lecture/40 hours laboratory by arrangement per term
- Limitation on enrollment: Audition/interview required; see schedule of classes for specific days and times.
- Note: Portions of this class are held off-campus and require travel, often out-of-state. Enrollment may be selective. Priority may be given to students who have taken core drama classes, are involved in productions, and/or have received Irene Ryan nominations or Meritorious Awards.

This course prepares students to audition and present their work at the Kennedy Center American College Theater Festival (KCACTF). Students will compete at the regional and national levels for scholarships, internships, and work related experiences in the fields of technical theatre, stage management, directing, playwriting, dramaturgy, and acting. CSU

DRAMA-130 Principles of Directing

3 units SC

- 54 hours lecture per term
- Recommended: DRAMA-123 or equivalent; concurrent enrollment in DRAMA-230 or equivalent; eligibility for ENGL-122 or equivalent

This course covers the function of the stage director; the preparation of a play script from the first reading through casting, rehearsals, and performance. Emphasis will be placed on theory of directing as well as on its practical application for the stage. CSU, UC

DRAMA-139 Introduction to Theater

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This introductory course surveys the roles of actors, directors, playwrights, and designers in the development of theatrical works. The multiple disciplines of theater throughout history are examined. It will also cover the origins of theater, dramatic structure, the audience and theater performance spaces. C-ID THTR 111, CSU, UC

DRAMA-142 Multicultural Perspectives in American Theater

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course will explore and evaluate contemporary dramatic literature (1965-present) of Native-American, African-American, Asian-Pacific American, Latinx/Chicanx, Arab American, and LGBTQ cultures. The historical as well as the cultural and social conditions in which these plays developed will also be examined. CSU, UC

DRAMA-150 Children's Theater

3 units SC

- 54 hours lecture per term

This is a course in the theory, principle, and practice of children's theater. It features the creation of a series of scenes or a full-length children's theater work using dialogue, singing, and dancing, with emphasis on techniques used in performance for a young audience. Students will explore the roles of performers, designers, and dramaturges in the creation of contemporary theater for children. CSU

DRAMA-155 Topics in Drama

.3-4 units SC

- Variable hours

A supplemental course in drama to provide a study of current concepts, problems, and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

DRAMA-157 Topics in Technical Theater

.3-4 units SC

- Variable hours

A supplemental course in technical theater to provide a study of current concepts, problems and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

DRAMA-170 Introduction to Musical Theater

3 units SC

- 54 hours lecture per term
- Recommended: MUSIC-170 or equivalent

This course develops performance skills combining singing, dancing, and acting in the presentation of scenes from musical theater. Students will learn and integrate acting, movement, and singing skills to create a believable character on stage. Rehearsal and performance techniques for a wide variety of musical theater styles and historical periods will be covered. CSU, UC

DRAMA-171 Musical Theater II

3 units SC

- 54 hours lecture per term
- Prerequisite: DRAMA-170 or equivalent
- Recommended: DRAMA-123 or equivalent

This course is a study of advanced musical theater with extensive focus on selected scenes and songs from the musical theater genre. The course continues to develop skills and techniques learned in DRAMA-170, with emphasis on singing, acting, blocking, and choreographed dance movement. Students will analyze and prepare musical theater material including ballads, up-tempo, duets, trios, and group songs, and will continue to introduce students to a body of musical theater literature, composers, lyricists, and librettists. CSU, UC

DRAMA-200 Introduction to Technical Theater

3 units SC

- 54 hours lecture per term
- Co-requisite: DRAMA-201 or equivalent

This course provides a theoretical as well as a practical overview of the elements of technical theater. Safety precautions, stage management, stage design, scenery, lighting, sound, acting, make-up, and costuming are among the topics to be presented. The course will also cover possible job opportunities in technical theater. C-ID THTR 171, CSU, UC

DRAMA-201 Technical Theater Laboratory

2-4 units SC

- Variable hours
- Prerequisite: DRAMA-200 or equivalent (may be taken concurrently)

This course covers the practical applications of technical theater including stage management, stage design, scenery construction, painting for the stage, properties, lighting, sound, make-up, and costuming. Students will obtain hands-on experience working on main stage productions, arena productions, and student-directed projects. Safety procedures for working in the shop and on stage performances are emphasized. C-ID THTR 192, CSU, UC

DRAMA-202 Fundamentals of Stage Production - Technical Theater

1-2 units SC

- May be repeated three times
- Variable hours
- Prerequisite: Audition and interview

This is an open entry open exit course where students participate in a technical theater capacity in a faculty directed stage production. Technical theater students are introduced to participating in a full length production in a variety of ways; working with sets, sound, lighting, painting, costume, stage management, and props. Students will be introduced to professional rehearsal and performance standards. All projects culminate in public performance. The organization and function of the technical staff, the structure of the physical theater, and job opportunities in technical theater will also be discussed. CSU, UC

DRAMA-230 Directing Projects

1-2 units SC

- *Variable hours*
- *Recommended: Concurrent enrollment in DRAMA-130 or equivalent; eligibility for ENGL-122 or equivalent*

This course provides students the opportunity to practice skills learned in DRAMA-130. Students will prepare and direct a scene or one act from script selection through performance. Students will cast, rehearse, and stage a variety of scenes or one acts; projects may culminate in limited public performance. Emphasis is placed on the director-actor relationship and creating effective staging. CSU, UC

DRAMA-260 Technical Theater Practicum

1-2 units SC

- *May be repeated three times*
- *Variable hours*
- *Limitation on enrollment: Interview with instructor and student director required. Specific days and times are announced in the Schedule of Classes.*
- *Recommended: DRAMA-200 and 201 or equivalent*
- *Note: This is an open-entry, open-exit course.*

This course allows technical theater students to receive practical experience through participation in student-directed projects. CSU, UC

DRAMA-270 Stage Production

1-2 units SC

- *May be repeated three times*
- *Variable hours*
- *Limitation on enrollment: Audition required. Specific days and times are announced in the Schedule of Classes.*
- *Recommended: DRAMA-122 or equivalent*
- *Note: This is an open entry, open exit course.*

After audition and evaluation the students participate in a full-length stage production, with emphasis on rehearsal, character development and collaborative production techniques. All projects will culminate in public performance. C-ID THTR 191, CSU, UC

DRAMA-275 Musical Theater Production

1-2 units SC

- *May be repeated three times*
- *Variable hours*
- *Prerequisite: Audition*

This is an open entry open exit course where students participate in a faculty directed musical theater stage production, with emphasis on the combination of singing, dancing, and acting. Musical Theater Production will focus on how to use musicality, song, and dance, to embody emotional life for performance on stage in a musical theater production. Students will be introduced to professional rehearsal and performance standards. All projects culminate in public performance. CSU, UC

DRAMA-295 Occupational Work Experience Education in DRAMA

1-4 units SC

- *May be repeated three times*
- *Variable hours*
- *Note: In order to enroll in DRAMA-295, students must be employed, register for the course, complete an online Employment Form, and participate in an orientation. Employment Form can be accessed at www.dvc.edu/wrkx. Incomplete grades are not awarded for this course.*

DRAMA-295 is supervised employment that extends classroom learning to the job site and relates to the student's chosen field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Five hours work per week or seventy-five hours work per term is equal to one unit. Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

DRAMA-296 Internship in Occupational Work Experience Education in DRAMA

1-4 units SC

- *May be repeated three times*
- *Variable hours*
- *Note: In order to enroll in the DRAMA-296 course, students must be interning or volunteering, register for the course, complete an online Employment Form, and participate in an orientation. The Employment Form can be accessed at www.dvc.edu/wrkx. Incomplete grades are not awarded for this course.*

DRAMA-296 is a supervised internship in a skilled or professional level assignment in the student's major field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Internships may be paid, non-paid, or some partial compensation provided. Five hours work per week or seventy-five hours work per term is equal to one unit (paid) or one unit for four hours work per week or sixty hours per term (unpaid work). Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

DRAMA-298 Independent Study

.5-3 units SC

- *Variable hours*
- *Note: Submission of acceptable educational contract to department and Instruction Office is required.*

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

DRAMA-299 Student Instructional Assistant

- .5-3 units SC
- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

EARLY CHILDHOOD EDUCATION – ECE

Obed Vazquez, Dean
 Social Sciences Division
 Faculty Office Building, Room 136

Possible career opportunities

Early childhood educators focus on children from zero to age five. Some of the positions held by early childhood professionals are: classroom aide, ECE teacher, site supervisor, program director, child care provider, adult educator of families and other professionals, resource and referral professional, social service worker, youth and family service worker, camp counselor, recreation leader, foster care provider, mental health paraprofessional, or child advocate.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

**Associate in science degree
 Early childhood education**

Students completing this program will be able to...

- A. identify developmentally appropriate activities for infants, toddlers and preschool age children.
- B. analyze the psychological, physical and cognitive influences on child development.
- C. apply the professional code of ethics.
- D. evaluate strategies to maximize the health, safety and nutrition of children in early childhood education programs.
- E. create a developmentally appropriate integrated curriculum.
- F. assess how socializing agents impact the lives of children and families.
- G. apply the principles of anti-bias pedagogy.
- H. apply observation and assessments to create appropriate environments.
- I. apply positive guidance skills with young children.
- J. apply constructivist theory and intentional teaching methodologies to teacher-child interactions.

The associate in science program in early childhood education is designed as a two-year curricular pathway that offers students a broad general education while integrating an in-depth study in child development and theory, principles and practices in early care and education. The early childhood education program prepares students for various careers working directly with children, families and other adults in the early childhood profession.

To earn a degree, students must complete each of the courses required for the major with a "C" grade or higher and complete general education requirements as listed in the catalog. Attending classes in the day, the evening or both can complete degree requirements.

<i>major requirements:</i>		<i>units</i>
ECE-123	Introduction to Curriculum in Early Childhood Education	3
ECE-124	Child Development and Psychology.....	3
ECE-125	Principles and Practices of Early Childhood Education	3
ECE-126	Health, Safety, and Nutrition for the Young Child	3
ECE-128	Advanced Curriculum Development in ECE.....	3
ECE-130	Child, Family, and Community.....	3
ECE-144	Diversity in Early Childhood Education	3
ECE-249	Observation and Assessment in the Classroom	4
ECE-250	Practicum in Early Childhood Education.....	4
total minimum units for the major		29

<i>recommended degree electives:</i>		
ECE-129	Strategies for Working with Challenging Behaviors.....	3
ECE-230	Developmentally Appropriate Practice for Infants and Toddlers	3
ECE-231	Infant and Toddler Development	3
ECE-237	Current Topics in Early Childhood Education	0.5-3
ECE-240	Language and Literacy for the Young Child	3
ECE-241	Science and Mathematics for Early Childhood Education.....	3
ECE-242	Music, Dance, and Drama for the Young Child	1
ECE-243	Creative Art for the Young Child	1
ECE-251	Administration I: Programs in Early Childhood Education.....	3
ECE-252	Administration II: Personnel and Leadership in ECE.....	3
ECE-253	Adult Supervision and Mentoring in Early Childhood Classrooms	2
ECE-269	Children with Special Needs.....	3
ECE-298	Independent Study.....	0.5-3

Associate in science in early childhood education for transfer

Students completing this program will be able to...

- A. identify developmentally appropriate activities for infants, toddlers and preschool age children.
- B. analyze the psychological, physical and cognitive influences on child development.
- C. apply the professional code of ethics.
- D. evaluate strategies to maximize the health, safety and nutrition of children in early childhood education programs.
- E. create a developmentally appropriate integrated curriculum.
- F. assess how socializing agents impact the lives of children and families.
- G. apply the principles of anti-bias pedagogy.
- H. apply observation and assessments to create appropriate environments.
- I. apply positive guidance skills with young children.

The associate in science in early childhood education for transfer is a 60 unit degree program designed to prepare students to transfer and study child development, human development, and early childhood education. Students will be prepared to take upper division courses their first semester after transferring. Typically, students who complete this program will be able to complete their upper division coursework in only two additional years. In addition to preparation for transfer, this degree also prepares students for various careers working directly with children, families and other adults in the early childhood profession. Upon completion of this program, students will be eligible to apply for the Teacher level permit on the Child Development Permit Matrix from the State of California Commission on Teacher Credentialing. Students will complete lower division courses in child growth and development, principles and practices in early childhood education, curriculum, observation, assessment, child/family/community relationships, diversity, health and safety, and a culminating student teaching practicum.

The associate in science in early childhood education for transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education pattern (CSU GE); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Some courses in the major satisfy both major and CSU GE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

<i>major requirements:</i>		<i>units</i>
ECE-123	Introduction to Curriculum in Early Childhood Education	3
ECE-124	Child Development and Psychology.....	3
ECE-125	Principles and Practices of Early Childhood Education	3
ECE-126	Health, Safety, and Nutrition of the Young Child	3
ECE-130	Child, Family, and Community	3
ECE-144	Diversity in Early Childhood Education	3
ECE-249	Observation and Assessment in the Classroom	4
ECE-250	Practicum in Early Childhood Education.....	4
total minimum units for the major		26

**Certificate of achievement
Early childhood education - Associate teacher**

Students completing the program will be able to...

- A. create a developmentally appropriate integrated curriculum.
- B. analyze the psychological, physical, and cognitive influences on child development.
- C. identify the principles and ideas of the Early Childhood Education profession.
- D. assess how socializing agents and culture impacts the lives of children and families

This certificate meets the education requirements for the associate teacher level of the Child Development Permit Matrix issued by the State of California Commission on Teacher Credentialing and Community Care Licensing, Title 22 requirements for a fully qualified teacher. After meeting additional experience requirements, graduates are qualified to apply for a Child Development Permit, which is required to work in federal and state funded programs for children aged 0-5.

To earn a certificate of accomplishment, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Attending classes in the day, the evening, or both can complete certificate requirements.

Early childhood education

<i>required courses:</i>	<i>units</i>
ECE-123 Introduction to Curriculum in Early Childhood Education	3
ECE-124 Child Development and Psychology.....	3
ECE-125 Principles and Practices of Early Childhood Education	3
ECE-130 Child, Family, and Community.....	3
total minimum required units	12

Certificate of achievement Early childhood education - Basic

Students completing this program will be able to...

- A. identify developmentally appropriate activities for infants, toddlers and preschool age children.
- B. analyze the psychological, physical and cognitive influences on child development.
- C. apply the professional code of ethics.
- D. evaluate strategies to maximize the health, safety and nutrition of children in early childhood education programs.
- E. create a developmentally appropriate integrated curriculum.
- F. assess how socializing agents impact the lives of children and families.
- G. apply the principles of anti-bias pedagogy.
- H. apply observation and assessments to create appropriate environments.
- I. apply positive guidance skills with young children.
- J. apply constructivist theory and intentional teaching methodologies to teacher child interactions.

This certificate prepares students to meet the demands of today's childcare centers, preschool programs, and nursery schools. The certificate meets the California State Department of Social Services, Community Care Licensing Title 22, and Division 12 requirements for a fully qualified teacher. The early childhood education basic certificate is an alternative certificate to the California State Matrix and to the child development certificate.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Attending classes in the day, the evening, or both can complete certificate requirements.

<i>required courses:</i>	<i>units</i>
ECE-123 Introduction to Curriculum in Early Childhood Education	3
ECE-124 Child Development and Psychology.....	3
ECE-125 Principles and Practices of Early Childhood Education	3
ECE-126 Health, Safety, and Nutrition for the Young Child	3
ECE-128 Advanced Curriculum Development in ECE.....	3
ECE-130 Child, Family, and Community.....	3
ECE-144 Diversity in Early Childhood Education	3
ECE-249 Observation and Assessment in the Classroom	4
ECE-250 Practicum in Early Childhood Education.....	4
total minimum required units	29

Certificate of achievement Early childhood education - Master teacher

Students completing this program will be able to...

- A. create a developmentally appropriate integrated curriculum.
- B. analyze the psychological, physical and cognitive influences on child development.
- C. identify and apply the principles and ideals of the Early Childhood Education profession.
- D. assess how socializing agents and culture impact the lives of children and families.
- E. evaluate strategies to maximize the health, safety and nutrition of children in early childhood education programs.
- F. apply the principles of anti-bias pedagogy.
- G. implement the observe, plan, document, reflect and assess cycle for curriculum planning.
- H. develop positive relationships and responsive interactions with young children.
- I. demonstrate techniques for guiding adults working with young children.
- J. demonstration of knowledge in a specialization area.
- K. apply constructivist theory and intentional teaching methodologies to teacher child interactions.

This early childhood education certificate meets the education requirements for the master teacher level of the Child Development Permit Matrix issued by the State of California Commission on Teacher Credentialing. After meeting additional experience requirements and a fingerprint clearance, graduates are qualified to apply for a Child Development Permit from the California Commission on Teacher Credentialing, which is required to work in federal and state funded programs for children aged 0-5.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Attending classes in the day, the evening, or both can complete certificate requirements.

<i>required courses:</i>	<i>units</i>
ECE-123 Introduction to Curriculum in Early Childhood Education	3
ECE-124 Child Development and Psychology.....	3
ECE-125 Principles and Practices of Early Childhood Education	3
ECE-126 Health, Safety, and Nutrition for the Young Child	3
ECE-128 Advanced Curriculum Development in ECE.....	3
ECE-130 Child, Family, and Community.....	3
ECE-144 Diversity in Early Childhood Education	3
ECE-249 Observation and Assessment in the Classroom	4
ECE-250 Practicum in Early Childhood Education.....	4
ECE-253 Adult Supervision and Mentoring in Early Childhood Classrooms	2

plus at least 6 units in any one of these areas of concentration:

creative expression

ECE-237*	Current Topics in Early Childhood Education	0.5-3
ECE-242	Music, Dance, and Drama for the Young Child	1
ECE-243	Creative Art for the Young Child	1

or one course from:

ART-155	Ceramic Sculpture I	3
ART-160	Photography I	3
DRAMA-150	Children's Theater	3
KNDAN-100	Introduction to Dance	0.5-2
KNDAN-110A	Ballet Fundamentals I	0.5-2
KNDAN-130A	Modern Dance Fundamentals I	0.5-2
KNCAN-160A	Tap Dance I	0.5-2
MUSIC-101	Beginning Guitar	1
MUSIC-102	Intermediate Guitar	1
MUSIC-112	America's Music – A Multicultural Perspective	3
MUSCI-150	Beginning Piano I	1
MUSIC-151	Beginning Piano II	1
MUSIC-171	Jazz and Popular Solo Voice	1

curriculum

ECE-237*	Current Topics in Early Childhood Education	0.5-3
ECE-240	Language and Literacy for the Young Child	3
ECE-241	Science and Mathematics for Early Childhood Education	3
ECE-242	Music, Dance, and Drama for the Young Child	1
ECE-243	Creative Art for the Young Child	1
ECE-244	Circle Time Activities	1

infants and toddlers

ECE-230	Developmentally Appropriate Practice for Infants and Toddlers	3
ECE-231	Infant and Toddler Development	3

language and literature

ECE 237*	Current Topics in Early Childhood Education	0.5-3
ECE-240	Language and Literacy for the Young Child	3
ENGL-177	Children's Literature	3
LT-111	Storytelling	2

science and math

ECE-237*	Current Topics in Early Childhood Education	0.5-3
ECE-241	Science and Mathematics for Early Childhood Education	3

(Note: Two ECE-237 courses in this category are required)

sign language

SIGN-280	American Sign Language (ASL) I	3
SIGN-281	American Sign Language (ASL) II	3
SIGN-282	American Sign Language (ASL) III	3
SIGN-283	American Sign Language (ASL) IV	3

special needs

ECE-129	Strategies for Working with Challenging Behaviors	3
ECE-269	Children with Special Needs	3
SIGN-280	American Sign Language (ASL) I	3
SIGN-281	American Sign Language (ASL) II	3
SIGN-282	American Sign Language (ASL) III	3
SIGN-283	American Sign Language (ASL) IV	3
SPEDU-101	Introduction to Disabilities	3
SPEDU-102	Historical Perspectives of Disabilities and the Law	3
SPEDU-103	Classroom Strategies for the Special Education Paraeducator	3

plus at least 16 units from:

general education courses

At least 3 units in each of these 4 subject areas: English (only one course from English 116, 117, 117A, or 118 can be used); Math/Science; Humanities (may not use History courses); Social Sciences (may not use ECE courses). CLEP or AP exams may not be used to meet the GE subject area unit requirements.

total minimum required units 53

*Topics for ECE-237 vary. Please contact the Early Childhood Education Department to verify if a specific ECE-237 course meets the requirements for a particular area of specialization.

Certificate of achievement

Early childhood education - Site supervisor

Students completing this program will be able to...

- A. create a developmentally appropriate integrated curriculum.
- B. analyze the psychological, physical and cognitive influences on child development.
- C. identify and apply the principles and ideals of the Early Childhood Education Profession.
- D. assess how socializing agents and culture impact the lives of children and families.
- E. evaluate strategies to maximize the health, safety and nutrition of children in early childhood education programs.
- F. develop techniques which will create sensitivity for various biases.
- G. implement the observe, plan, document, reflect and assess cycle for curriculum planning.
- H. develop positive relationships and responsive interactions with young children.
- I. demonstrate techniques for guiding adults working with young children.
- J. examine theory and methodology for effective supervision.
- K. apply ethical codes and licensing standards to practices and policies.
- L. identify business requirements for children's centers.
- M. examine theory and methodology for effective supervision.
- N. demonstrate knowledge in specialization area.

Early childhood education

This early childhood education certificate meets the education requirements for the site supervisor level of the Child Development Permit Matrix issued by the State of California Commission on Teacher Credentialing. After meeting additional experience requirements and a fingerprint clearance, graduates are qualified to apply for a Child Development Permit from the California Commission on Teaching Credentialing, which is required to work in federal and state funded programs for children aged 0-5.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Attending classes in the day, the evening, or both can complete certificate requirements.

<i>required courses:</i>	<i>units</i>
ECE-123 Introduction to Curriculum in Early Childhood Education.....	3
ECE-124 Child Development and Psychology.....	3
ECE-125 Principles and Practices of Early Childhood Education.....	3
ECE-126 Health, Safety, and Nutrition for the Young Child	3
ECE-128 Advanced Curriculum Development in ECE.....	3
ECE-130 Child, Family, and Community	3
ECE-144 Diversity in Early Childhood Education	3
ECE-249 Observation and Assessment in the Classroom	4
ECE-250 Practicum in Early Childhood Education	4

plus at least 16 units from:
general education courses..... 16

At least 3 units in each of these 4 subject areas: English (only one course from English 116, 117, 117A, or 118 can be used); Math/Science; Humanities (may not use History courses); Social Sciences (may not use ECE courses). CLEP or AP exams may not be used to meet the GE subject area unit requirements.

<i>plus 8 units:</i>	
ECE-251 Administration I: Programs in Early Childhood Education.....	3
ECE-252 Administration II: Personnel and Leadership in ECE.....	3
ECE-253 Adult Supervision and Mentoring in Early Childhood Classrooms	2

<i>plus 7 units of electives:</i>	
<i>suggested courses</i>	
ECE-100 Essential Life Skills of Childhood.....	1-3
ECE-101 Media and the Developing Child.....	1-3
ECE-102 Childhood and Nature.....	1-3
ECE-103 Brain Development in Childhood.....	1-3
ECE-104 Cultural Influences on the Developing Child	1-3
ECE-105 Emotional Intelligence and the Developing Child	1-3
ECE-106 Child Behavior: Is This Normal?	1-3
ECE-110 Current Issues in Child Development.....	1-3
ECE-111 Current Issues in Child Cognitive Development	1-3
ECE-112 Current Issues in Child Physical Development	1-3
ECE-113 Play and the Developing Child.....	1-3

ECE-114 Current Issues in Child Personality Development	1-3
ECE-126 Health, Safety, and Nutrition for the Young Child	3
ECE-129 Strategies for Working with Challenging Behaviors.....	3
ECE-230 Developmentally Appropriate Practice for Infants and Toddlers	3
ECE-231 Infant and Toddler Development	3
ECE-269 Children with Special Needs.....	3
total minimum required units	60

Certificate of achievement Early childhood education - Teacher Students completing the program will be able to...

- A. identify developmentally appropriate activities for infants, toddlers and preschool age children.
- B. analyze the psychological, physical and cognitive influences on child development.
- C. apply the professional code of ethics.
- D. evaluate strategies to maximize the health, safety and nutrition of children in early childhood education programs.
- E. create a developmentally appropriate integrated curriculum.
- F. assess how socializing agents impact the lives of children and families.
- G. apply the principles of anti-bias pedagogy.
- H. apply observation and assessments to create appropriate environments.
- I. apply positive guidance skills with young children.
- J. apply constructivist theory and intentional teaching methodologies to teacher child interactions.

This early childhood education certificate meets the education requirements for the teacher level of the Child Development Permit Matrix issued by the State of California Commission on Teacher Credentialing. After meeting additional experience requirements and a fingerprint clearance, graduates are qualified to apply for a Child Development Permit from the California Commission on Teacher Credentialing, which is required to work in federal and state funded programs for children aged 0-5.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Attending classes in the day, the evening, or both can complete certificate requirements.

required courses:	units
ECE-123 Introduction to Curriculum in Early Childhood Education	3
ECE-124 Child Development and Psychology.....	3
ECE-125 Principles and Practices of Early Childhood Education	3
ECE-126 Health, Safety and Nutrition for the Young Child	3
ECE-128 Advanced Curriculum Development in ECE.....	3
ECE-130 Child, Family, and Community.....	3
ECE-144 Diversity in Early Childhood Education	3
ECE-249 Observation and Assessment in the Classroom	4
ECE-250 Practicum in Early Childhood Education.....	4

plus at least 16 units from:
 general education courses..... 16

At least 3 units in each of these 4 subject areas: English (only one course from English 116, 117, 117A, or 118 can be used); Math/Science; Humanities (may not use History courses); Social Sciences (may not use ECE courses). CLEP or AP exams may not be used to meet the GE subject area unit requirements.

total minimum required units 45

ECE-100 Essential Life Skills of Childhood

- 1-3 units P/NP
- Variable hours
 - Note: One unit: lecture only. Two units: lecture plus three laboratory hours per week. Three units: lecture plus six hours per week. Participation in the Developmental Children’s Center Laboratory School or approved off-campus mentor site is required for laboratory hours. All students enrolled in laboratory must have a negative TB test and verified immunizations against pertussis, measles and influenza (waiver allowed for influenza).

This course explores essential life skills developed during childhood that make a lifelong difference in our ability to learn, communicate and cope with challenges. Drawing from research in child development and neuroscience, this course outlines practical ways people working with children can foster these skills in young children. CSU

ECE-101 Media and the Developing Child

- 1-3 units P/NP
- Variable hours
 - Note: One unit: lecture only. Two units: lecture plus three laboratory hours per week. Three units: lecture plus six hours per week. Participation in the Developmental Children’s Center Laboratory School or approved off-campus mentor site is required for laboratory hours. All students enrolled in laboratory must have a negative TB test and verified immunizations against pertussis, measles and influenza (waiver allowed for influenza).

This class investigates popular media and implications for the developing child. Focus is on the impact of media on personality, cognition, social attributes and health. Strategies for assessing media and using it effectively will be explored. CSU

ECE-102 Childhood and Nature

- 1-3 units P/NP
- Variable hours
 - Note: One unit: lecture only. Two units: lecture plus three laboratory hours per week. Three units: lecture plus six hours per week. Participation in the Developmental Children’s Center Laboratory School or approved off-campus mentor site is required for laboratory hours. All students enrolled in laboratory must have a negative TB test and verified immunizations against pertussis, measles and influenza (waiver allowed for influenza).

This course explores the vital role of children’s ongoing experiences with nature as a basis for creativity, problem solving, critical thinking and physical and emotional well-being. It introduces multiple resources and practical hands-on activities that support child-nature connections. CSU

ECE-103 Brain Development in Childhood

- 1-3 units P/NP
- Variable hours
 - Note: One unit: lecture only. Two units: lecture plus three laboratory hours per week. Three units: lecture plus six laboratory hours per week. Participation in the Developmental Children’s Center Laboratory School or approved off-campus mentor site is required for laboratory hours. All students enrolled in laboratory must have a negative TB test and verified immunizations against pertussis, measles and influenza (waiver allowed for influenza).

This class studies the neurological connections that form in a child’s brain during pregnancy and early childhood and the long-term effects of environmental factors during these formative years. Topics range from the connections between the brain and emotional regulation to the complexity of language acquisition. CSU

ECE-104 Cultural Influences on the Developing Child

- 1-3 units P/NP
- Variable hours
 - Note: One unit: lecture only. Two units: lecture plus three laboratory hours per week. Three units: lecture plus six laboratory hours per week. Participation in the developmental Children’s Center Laboratory School or approved off-campus mentor site is required for laboratory hours. All students enrolled in laboratory must have a negative TB test and verified immunizations against pertussis, measles and influenza (waiver allowed for influenza).

This course explores personality development in young children within the context of culture. The interacting forces that shape personality are discussed. Focus is on the role of caregivers in supporting optimal social-emotional development in young children. CSU

ECE-105 Emotional Intelligence and the Developing Child

1-3 units P/NP

- Variable hours
- Note: One unit: lecture only. Two units: lecture plus three laboratory hours per week. Three units: lecture plus six laboratory hours per week. Participation in the Developmental Children's Center Laboratory School or approved off-campus mentor site is required for laboratory hours. All students enrolled in laboratory must have a negative TB test and verified immunizations against pertussis, measles and influenza (waiver allowed for influenza).

This course explores the development of children's emotional intelligence. The interacting forces that shape emotional intelligence are discussed. Focus is on the role of caregivers in supporting optimal emotional intelligence development in young children. CSU

ECE-106 Child Behavior: Is This Normal?

1-3 units P/NP

- Variable hours
- Note: One unit: lecture only. Two units: lecture plus three laboratory hours per week. Three units: lecture plus six laboratory hours per week. Participation in the Developmental Children's Center Laboratory School or approved off-campus mentor site is required for laboratory hours. All students enrolled in laboratory must have a negative TB test and verified immunizations against pertussis, measles and influenza (waiver allowed for influenza).

This course explores a broad range of behaviors in young children. Child development information, resources, and suggestions for addressing specific behavior issues will be presented. CSU

ECE-110 Current Issues in Child Development

1-3 units P/NP

- Variable hours
- Note: All students enrolling in laboratory units must have a negative TB test and verified immunizations against pertussis, measles and influenza (waiver allowed for influenza). Participation in the Developmental Children's Center Laboratory School or approved off-campus mentor site is required for two or three units. One unit: lecture only. Two units: lecture plus three laboratory hours per week. Three units: lecture plus six laboratory hours per week.

This course presents an in-depth investigation into current research, theories, and issues in the study of child development. The emphasis is on analyzing current and ongoing research along with contemporary trends. Specific current issues will be announced in the schedule of classes. CSU

ECE-111 Current Issues in Child Cognitive Development

1-3 units P/NP

- Variable hours
- Note: All students enrolling in laboratory units must have a negative TB test and verified immunizations against pertussis, measles and influenza (waiver allowed for influenza). Participation in the Developmental Children's Center Laboratory School or approved off-campus mentor site is required for two or three units. One unit: lecture only. Two units: lecture plus three laboratory hours per week. Three units: lecture plus six laboratory hours per week.

This course presents an in-depth investigation into current research, theories, and issues in the study of cognitive development. Emphasis is placed on understanding how children's thinking develops and evaluation of major theories and explanations for intellectual growth. Both classic findings and state-of-the-art research are reviewed and applied to contemporary issues related to children's cognitive and language development. CSU

ECE-112 Current Issues in Child Physical Development

1-3 units P/NP

- Variable hours
- Note: All students enrolling in laboratory units must have a negative TB test and verify immunizations against pertussis, measles and influenza (waiver allowed for influenza). Participation in the Developmental Children's Center Laboratory School or approved off-campus mentor site is required for two or three units. One unit: lecture only. Two units: lecture plus three laboratory hours per week. Three units: lecture plus six laboratory hours per week.

This course presents an in-depth investigation into current research, theories, and issues related to physical development of young children. It examines the essential nature of physical play for children's development and learning. Issues that impact physical development will be investigated along with resources and practical hand-on developmentally appropriate experiences. CSU

ECE-113 Play and the Developing Child

1-3 units P/NP

- Variable hours
- Note: All students enrolling in laboratory units must have a negative TB test and verified immunizations against pertussis, measles and influenza (waiver allowed for influenza). Participation in the Developmental Children's Center Laboratory School or approved off-campus mentor site is required for two or three units. One unit: lecture only. Two units: lecture plus three laboratory hours per week. Three units: lecture plus six laboratory hours per week.

This class presents an in-depth investigation into current research and theories on the role of play as a significant factor in human success and happiness. Why children play, what they learn through play and how toys facilitate play and broaden development are discussed. Focus is on current research on play and its profound implications for child development and parenting, for education and social policy, and for multiple aspects of the future of our society. CSU

ECE-114 Current Issues in Child Personality Development

1-3 units P/NP

- Variable hours
- Note: All students enrolling in laboratory units must have a negative TB test and verify immunizations against pertussis, measles and influenza (waiver allowed for influenza). Participation in the Developmental Children's Center Laboratory School or approved off-campus mentor site is required for two or three units. One unit: lecture only. Two units: lecture plus three laboratory hours per week. Three units: lecture plus six laboratory hours per week.

This course presents an in-depth investigation in current research, theories, and issues in the study of personality development. The emphasis is on analyzing current and ongoing research along with contemporary trends. CSU

ECE-123 Introduction to Curriculum in Early Childhood Education

3 units LR

- 54 hours lecture per term
- Recommended: ECE-124, eligibility for ENGL-122 or equivalent
- Note: Meets the Department of Social Services licensing for DSS III Program and Curriculum Development

This course presents developmentally appropriate curriculum and environments for young children. Teaching and curriculum development strategies based on theoretical frameworks, observation, and assessment are explored. There is an emphasis on the teacher's role in supporting child development and learning across the curriculum. C-ID ECE 130, CSU

ECE-124 Child Development and Psychology

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Meets the State Department of Social Services licensing requirement for DSS I Child/Human Growth and Development

This course examines the major physical, psychosocial, and cognitive/language developmental milestones for children, both typical and atypical, from conception through adolescence. Emphasis is placed on interactions between maturational processes and environmental factors. Students will observe children, evaluate individual differences, and analyze characteristics of development at various stages according to developmental theories. C-ID CDEV 100, CSU, UC

ECE-125 Principles and Practices of Early Childhood Education

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Meets the State Department of Social Services licensing requirement for DSS III, Program and Curriculum Development

This course examines the principles of developmentally appropriate practices as applied to early childhood education settings. The history and philosophy of early childhood education, the ethics of professional practices, and orientation to careers working with children are included. Emphasis is placed on types of programs, learning environments, the key role of relationships, constructive adult-child interactions, and teaching strategies supporting the development of all children. C-ID ECE 120, CSU

ECE-126 Health, Safety, and Nutrition for the Young Child

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Meets the State Department of Social Services licensing requirement for DSS VII, Health and Safety

This course presents an Introduction to the laws, regulations, standards, policies and procedures, and early childhood curriculum related to child health, safety and nutrition. The key components that ensure physical and mental health, along with safety for both children and staff will be identified along with the importance of collaboration with families and health professionals. Emphasis will include the integration of the concepts into everyday planning and program development for all children. C-ID ECE 220, CSU

ECE-128 Advanced Curriculum Development in ECE

3 units SC

- 54 hours lecture per term
- Co-requisite: ECE 124 or equivalent (may be taken previously)
- Recommended: ECE-123 and eligibility for ENGL-122 or equivalents
- Note: Meets the State Department of Social Services licensing requirement for DSS III, Program and Curriculum Development

This advanced course will focus on new trends, approaches and techniques in early childhood education curriculum. Students will explore and practice various early childhood education curriculum approaches. CSU

ECE-129 Strategies for Working with Challenging Behaviors

3 units SC

- 54 hours lecture per term
- Recommended: ECE-124, eligibility for ENGL-122 or equivalent
- Note: Meets the State Department of Social Services licensing requirement for DSS III, Program and Curriculum Development. This course can be applied to professional development units for Child Development Permit holders as well as pre-school, transitional kindergarten, and early-primary teachers.

This course examines developmentally appropriate behaviors, challenging behaviors, and the various influences that effect how young children respond in a variety of situations. Topics include analysis of children's behaviors and strategies to support social competency. CSU

ECE-130 Child, Family, and Community

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Meets the State Department of Social Services licensing requirements for DSS II, Child, Family, and Community

This course presents an examination of societal influences and the role of collaboration between family, community, and schools in supporting children's development. Community resources supporting children and their families within their cultures and communities are introduced. C-ID CDEV 110, CSU

ECE-144 Diversity in Early Childhood Education

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Meets the State Department of Social Services licensing requirements for DSS III, Program and Curriculum Development

This course examines the impact of various societal influences on the development of children's social identity. Developmentally appropriate, inclusive, and anti-bias approaches are discussed. Self-examination and reflection on issues related to social identity, stereotypes, and bias will also be emphasized. C-ID ECE 230, CSU

ECE-230 Developmentally Appropriate Practice for Infants and Toddlers

3 units SC

- 54 hours lecture per term
- Recommended: ECE-124 and eligibility for ENGL-122 or equivalents
- Note: Meets the State Department of Social Services licensing requirement for DSS IV, Infant Care and Development

This course applies current theory and research to the care and education of infants and toddlers in group settings. It examines essential policies, principles and practices that lead to quality care and developmentally appropriate curriculum for children birth to 36 months, including elements of responsive environments and collaboration with families. CSU

ECE-231 Infant and Toddler Development

3 units SC

- 54 hours lecture per term
- Recommended: ECE-124, ECE-230 and eligibility for ENGL-122 or equivalents

This course studies the physical, cognitive, linguistic, social, and emotional development and growth of infants and toddlers. Students will apply current research and developmental theory to infant and toddler behavior. Emphasis is placed on the role of the family and relationships. CSU

ECE-237 Current Topics in Early Childhood Education

.5-3 units SC

- Variable hours
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Meets the State Department of Social Services licensing requirement for DSS III, Program and Curriculum Development, if taken for 3 units, and the course is a curriculum course

A supplemental course in child development to provide a study of current concepts and problems in the major theories of child development including their philosophical bases, their techniques and their materials and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

ECE-240 Language and Literacy for the Young Child

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is an introduction to young children's literature, emergent literacy and the development of speech and language during infancy and early childhood. Students will explore teaching techniques which promote language, literacy and literature for the young child. Approaches to reading books, storytelling, story writing, etc. will be introduced and practiced. CSU

ECE-241 Science and Mathematics for Early Childhood Education

3 units SC

- 54 hours lecture per term
- Note: Meets the State Department of Social Services licensing requirement for DSS III, Program and Curriculum Development

This course explores how science, mathematics, the physical and the natural world are integrated into early childhood education curricula. Students will create science and math experiences, select appropriate materials, and learn specific scientific and mathematical techniques for working with young children. The course focuses on tapping into children's natural curiosity by utilizing observation, reasoning skills, inquiry and hands-on, playful experiences. CSU

ECE-242 Music, Dance, and Drama for the Young Child

1 unit SC

- 18 hours lecture per term
- *Note: Meets the State Department of Social Services licensing requirement for DSS III, Program and Curriculum Development. This course can be applied to professional development units for Child Development Permit holders, as well as pre-school, transitional kindergarten, and early-primary teachers.*

The course presents an introduction to the performing arts domain of the California Preschool Learning Foundations and Frameworks including the strands of music, dance, and drama throughout the curriculum will be explored. CSU

ECE-243 Creative Art for the Young Child

1 unit SC

- 18 hours lecture per term
- *Recommended: Eligibility for ENGL-122 or equivalent*
- *Note: Meets the State Department of Social Services licensing requirement for DSS III, Program and Curriculum Development. This course can be applied to professional development units for Child Development Permit holders, as well as pre-school, transitional kindergarten, and early-primary teachers.*

This course presents an introduction to the visual arts domain of the California Preschool Learning Foundations and Frameworks. The developmental stages of children's artistic expression and practical strategies for exploring creative art mediums with young children will be covered. CSU

ECE-244 Circle Time Activities

1 unit SC

- 18 hours lecture per term

This course is designed to present the value of circle or group time for young children. Written materials, demonstrations, lecture and discussions, and sharing of student experiences are utilized to teach practical and theoretical application of songs, stories, games, finger plays and other circle time activities. CSU

ECE-249 Observation and Assessment in the ECE Classroom

4 units SC

- 54 hours lecture/54 hours laboratory by arrangement per term
- *Prerequisite: ECE-124 or ECE-125 (may be taken concurrently) or equivalents*
- *Recommended: Eligibility for ENGL-122 or equivalent*
- *Note: Required negative TB test and verify immunizations against pertussis, measles and influenza (waiver allowed for influenza) to participate in laboratory work at DVC Children's Center or approved mentor site. Meets the State Department of Social Services licensing requirement for DSS III, Program and Curriculum Development.*

This course focuses on the appropriate use of assessment and observation strategies to document development, growth, play and learning in early childhood education settings. Students will utilize practical classroom experiences to apply a variety of observation methodologies including, child portfolios, recording strategies, rating systems, and multiple assessment tools. Students will explore the connections between developmental theory and practical usage of reflective observation in the DVC Children's Center or an approved mentor site. C-ID ECE 200, CSU

ECE-250 Practicum in Early Childhood Education

4 units SC

- 36 hours lecture/108 hours laboratory by arrangement per term
- *Prerequisite: ECE-123, ECE-124, ECE-125 and ECE-249 or equivalents*
- *Recommended: Eligibility for ENGL-122 or equivalent*
- *Note: Required negative TB test and verify immunizations against pertussis, measles and influenza (waiver allowed for influenza) to participate in lab work. Meets the State department of Social Services licensing requirement for DSS III, Program and Curriculum Development.*

This course provides a supervised practicum study of developmentally appropriate early childhood teaching competencies. Students will utilize practical classroom experiences to make connections between theory and practice, develop professional behaviors, and build a comprehensive understanding of children and families from diverse backgrounds. Child centered, play-oriented approaches to teaching, learning, and assessment; and knowledge of curriculum content areas will be emphasized. Student will design, implement, and evaluate learning activities and environments. C-ID ECE 210, CSU

ECE-251 Administration I: Programs in Early Childhood Education

- 3 units SC
- 54 hours lecture per term
 - Prerequisite: ECE-124 or equivalent
 - Note: Meets the State Department of Social Services licensing requirement for DSS VI, Supervision and Administration

This course presents an introduction to the administration of early childhood programs (ECE). Topics include program types, budget, management, regulations, laws, development and implementation of policies and procedures. Administrative tools, philosophies, and techniques needed to organize, open, and operate an early care and education program will be examined. CSU

ECE-252 Administration II: Personnel and Leadership in ECE

- 3 units SC
- 54 hours lecture per term
 - Recommended: ECE-251 and eligibility for ENGL-122 or equivalents
 - Note: Meets the State Department of Social Services licensing requirement for DSS VI, Supervision and Administration

This course provides an overview of effective strategies for personnel management and leadership in early care and education settings. Focus is on the human relations aspects of successful administration. Topics include legal and ethical responsibilities, supervision techniques, professional development, and reflective practices for a diverse and inclusive early care and education program. CSU

ECE-253 Adult Supervision and Mentoring in Early Childhood Classrooms

- 2 units SC
- 36 hours lecture per term
 - Recommended: ECE-124, 125, 130 and 250 or equivalents; eligibility for ENGL-122 or equivalent

This course is a study of the methods and principles of supervising student teachers, assistant teachers, volunteers and other adults in early childhood education settings. Emphasis is on the roles and development of early childhood professionals as mentors and leaders. CSU

ECE-254 Language and Literacy for the Young Child

- 1 unit SC
- 18 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent
 - Note: This course can be applied to professional development units for Child Development Permit holders as well as pre-school, transitional kindergarten, and early-primary teachers

This course presents an introduction to children's literature, emergent literacy, and the development of speech and language during infancy and early childhood. The language and literacy development domain of the California Preschool Learning Foundations and Frameworks, including the strands of listening, speaking, reading, and writing will be introduced. Students will explore teaching techniques which promote language and literacy. CSU

ECE-255 English Learners in Early Childhood Classroom Settings

- 1 unit SC
- 18 hours lecture per term
 - Recommended: ENGL-122 or equivalent
 - Note: This course can be applied to professional development units for Child Development Permit holders, as well as pre-school, transitional kindergarten, and early-primary teachers.

This course presents an introduction to the English language learners domain of the California Preschool Learning Foundations and Frameworks, including strands of listening, speaking, reading and writing. Principles and practices for supporting English language development in second language learners are presented. CSU

ECE-269 Children with Special Needs

- 3 units SC
- 54 hours lecture per term
 - Recommended: ECE-124 and eligibility for ENGL-122 or equivalents

This course provides an introduction to the variations in development of children with special needs, as well as the resulting impact on families, and will focus on the years between birth through aged eight. An overview of historical and societal influences, laws relating to children with special needs, and the identification and referral process will also be discussed. CSU

ECE-295 Occupational Work Experience Education in ECE

- 1-4 units SC
- May be repeated three times
 - Variable hours
 - Note: In order to enroll in ECE-295, students must be employed, register for the course, complete an online Employment Form, and participate in an orientation. Employment Form can be accessed at www.dvc.edu/wrkx. Incomplete grades are not awarded for this course.

ECE-295 is supervised employment that extends classroom learning to the job site and relates to the student's chosen field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Five hours work per week or seventy-five hours work per term is equal to one unit. Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

ECE-296 Internship in Occupational Work Experience Education in ECE

1-4 units SC

- *May be repeated three times*
- *Variable hours*
- *Note: In order to enroll in the ECE-296 course, students must be interning or volunteering, register for the course, complete an online Employment Form, and participate in an orientation. The Employment Form can be accessed at www.dvc.edu/wrxx. Incomplete grades are not awarded for this course.*

ECE-296 is a supervised internship in a skilled or professional level assignment in the student's major field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Internships may be paid, non-paid, or some partial compensation provided. Five hours work per week or seventy-five hours work per term is equal to one unit (paid) or one unit for four hours work per week or sixty hours per term (unpaid work). Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

ECE-298 Independent Study

.5-3 units SC

- *Variable hours*
- *Note: Submission of acceptable educational contract to department and Instruction Office is required.*

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

ECE-299 Student Instructional Assistant

.5-3 units SC

- *Variable hours*
- *Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.*

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

ECONOMICS – ECON

Obed Vazquez, Dean

Social Sciences Division

Faculty Office Building, Room 136

Possible career opportunities

Economics is a basic component for a career in law, management, sales, banking, health care industry, utility industry, consulting, statistical analysis, finance, and government. Most career options require more than two years of college study.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in arts in economics for transfer

Students completing the program will be able to...

- apply economic theories and economic reasoning to real life situations.
- use analytical techniques to measure economic conditions related to the individual, business firms, industries, and economic systems.
- explain the role that households, business organizations, governments, and the international sector, play in free markets, command economies, and mixed economies.
- evaluate the objectives, limitations, and mechanics of regulation, taxation, tariffs, quotas, and monetary and fiscal policies.
- use quantitative methodology to measure economic outcomes.

The associate in arts in economics for transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education-Breadth pattern (CSU GE-Breadth); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of C or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor’s degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Students must complete each course used to meet a major requirement with a “C” grade or higher. Some courses in the major satisfy both major and CSUGE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

<i>major requirements:</i>	<i>units</i>
ECON-220 Principles of Macroeconomics	3
ECON-221 Principles of Microeconomics	3

<i>plus at least 3 units from:</i>	
BUS-240 Business Statistics.....	3
MATH-142 Elementary Statistics with Probability	4

<i>plus at least 4 units from:</i>	
MATH-182 Calculus for Management, Life Science and Social Science I.....	4
MATH-192 Analytic Geometry and Calculus I	5

<i>plus at least 3 units from:</i>	
BUS-294 Business Law	3
BUSAC-186 Financial Accounting.....	4
BUSAC-187 Managerial Accounting	4
MATH-181 Finite Mathematics.....	3
MATH-193 Analytic Geometry and Calculus II	5

<i>plus at least 3 units from any course above not already used or:</i>	
ECON-101 Economics of Public Issues	3
ECON-200 Introduction to Economics.....	3
MATH-194 Linear Algebra	3
MATH-292 Analytic Geometry and Calculus III	5

total minimum units for the major 19

ECON-101 Economics of Public Issues

- 3 units SC
- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course examines economic aspects of selected current public issues such as price controls, crime, education, poverty, pollution, international trade, and taxes. It will analyze the role of economics as a social science in understanding causes of and policies for dealing with current public issues. CSU, UC (credit limits may apply to UC - see counselor)

ECON-200 Introduction to Economics

- 3 units SC
- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is a survey of the basic principles of economics, including both microeconomics and macroeconomics. Concepts such as market supply and demand, market structures, resource markets, business cycles, fiscal policy, the Federal Reserve System, and international trade are introduced. CSU, UC (credit limits may apply to UC - see counselor)

ECON-220 Principles of Macroeconomics

- 3 units SC
- 54 hours lecture per term
- Prerequisite: MATH-120 or MATH-120SP or equivalent
- Recommended: Eligibility for ENGL-122 or equivalent

This course provides an introduction to fundamental economic principles that recur throughout economics such as scarcity, opportunity cost, marginal decision making and the gains from trade. Macroeconomics focuses on broad economic aggregates such as total output, employment, the price level and the rate of economic growth. The course also examines fiscal and monetary policies and institutions, and applies macroeconomic theories to current economic issues. C-ID ECON 202, CSU, UC

ECON-221 Principles of Microeconomics

- 3 units SC
- 54 hours lecture per term
- Prerequisite: MATH-120 or MATH-120SP or equivalent
- Recommended: Eligibility for ENGL-122 or equivalent

This course provides an introduction to fundamental microeconomic principles. Topics include a detailed study of the market mechanism, the elasticity properties of the demand and supply curves, how individuals make decisions about consumption and labor supply, how firms make decisions about how and how much to produce, and why some goods do not lend themselves to private production. The course also examines types of market structure and current economic issues. C-ID ECON-201, CSU, UC

ECON-255 Topics in Economics

- .3-4 units SC
- Variable hours

A supplemental course in economics to provide a study of current concepts and problems in economics and related substantive areas. Specific topics will be announced in the schedule of classes. CSU

ECON-298 Independent Study

.5-3 units SC

- *Variable hours*
- *Note: Submission of acceptable educational contract to department and Instruction Office is required.*

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

ECON-299 Student Instructional Assistant

.5-3 units SC

- *Variable hours*
- *Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.*

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

EDUCATION – EDUC

Obed Vazquez, Dean
Social Sciences Division
Faculty Office Building, Room 136

Possible career opportunities

There are two types of credentials for teaching in the public schools in California. One type is the Multiple Subjects Credential for teachers in a self-contained classroom, which generally means teaching in grades K-6 or K-8. The other is the Single Subject Credential for teachers responsible for only one subject, which in general is preparation for teaching high school (grades 9-12). Both career options require a baccalaureate degree at a minimum.

Preparation for teaching may be useful for students who also wish to pursue careers in human resources, counseling, communication studies, recreation administration, social welfare, and corporate training.

Associate in arts in elementary teacher education for transfer

Students completing this program will be able to...

- analyze models and methods of effective teaching, especially in relation to the needs of a diverse student body.
- Examine the physical, cognitive/language, social-emotional milestones in school age children.
- Understand and analyze how concepts of mathematics, English and language arts, social studies, visual and performing arts and science apply to teaching at an elementary level.

The associate in arts in elementary teacher education for transfer is an interdisciplinary program which meets state guidelines in order to prepare students to begin their path toward becoming elementary school teachers. Students majoring in elementary teacher education develop critical thinking, problem solving, and written and verbal communication skills. As elementary teacher education majors, students have learning opportunities that are relevant to many types of careers working with children and parents including special education, elementary education, and social work. This major provides early field work experience working with children in an elementary school.

The associate in arts in elementary teacher education for transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major. The associate in arts in elementary teacher education for transfer is consistent with the mission of the community college to assist students in achieving a seamless transfer to the CSU system.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education pattern (CSU GE); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system, or those students who do not intend to transfer.

Students must complete each course used to meet a major requirement with a "C" grade or higher. Some courses in the major satisfy both major and CSUGE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

Education

<i>major requirements:</i>		<i>units</i>
BIOSC-102	Fundamentals of Biological Science with Laboratory	4
COMM-120	Public Speaking	3
ECE-124	Child Development and Psychology.....	3
EDUC-120	Introduction to Teaching in Elementary Schools.....	3
ENGL-122	First-Year College Composition and Reading	3
ENGL-123	Critical Thinking: Composition and Literature	3
GEOG-135	World Regional Geography.....	3
GEOL-130	Earth Science	4
HIST-120	History of the United States before 1877	3
HIST-180	World History to 1500	3
MATH-125	Mathematical Concepts for Elementary School Teachers.....	3
PHYS-110	Elementary Physics.....	3
PHYS-111	Physics Laboratory	1
POLSC-121	Introduction to United States Government	3

<i>at least 4 units from:</i>		
CHEM-106	Chemistry for Non-Science Majors	4
CHEM-108	Introductory Chemistry	4

<i>at least 3 units from:</i>		
COMM-121	Persuasion and Critical Thinking	3
ENGL-126	Critical Thinking: The Shaping of Meaning in Language	3
HIST-122	Critical Reasoning in History	3
PHILO-130	Logic and Critical Thinking	3
PSYCH-145	Critical Thinking in Psychology.....	3
SOCIO-122	Critical Thinking About Social and Cultural Issues.....	3

<i>plus at least 3 units from:</i>		
DANCE-201	Western Culture Dance History: 20th Century to Present.....	3
DRAMA-139	Introduction to Theater	3
MUSIC-110	Music Appreciation	3

total minimum units for the major 52

EDUC-120 Introduction to Teaching in Elementary Schools

3 units LR

- 36 hours lecture/54 hours laboratory by arrangement per term
- Limitation on enrollment: Current TB clearance and background check required. A fee for service will be charged for the background check. See the schedule of classes for specific information.
- Recommended: ENGL-122 or equivalent
- Note: Credit by examination option available

This course introduces students to the concepts and issues related to teaching diverse learners in today's contemporary schools, pre-kindergarten through grade twelve. Topics include teaching as a profession and career, historical and philosophical foundations of the United States' education system, contemporary educational issues, California's content standards and frameworks, and teacher performance standards. In addition to lecture, this course requires structured fieldwork in public school elementary classrooms that represent California's diverse student population, and includes cooperation with at least one carefully selected and campus-approved certificated classroom teacher. C-ID EDUC 200, CSU, UC

ELECTRICAL/ELECTRONICS TECHNOLOGY – ELECT/ELTRN

Joseph Gorga, Dean

Physical Sciences and Engineering Division

Physical Sciences Building, Room 263

Possible career opportunities

The types of jobs and careers involving electrical/electronics include: electrical, medical, industrial, and commercial electronic programmable logic controller systems; computers; consumer products; radio and television; instrumentation; communications; automotive and others.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in science degree

Electrical/electronics technology

Students completing the program will be able to...

- A. identify common electrical circuit components and their use.
- B. solve AC and DC circuits for voltage, current, resistance, power, and other parameters.
- C. operate and understand common laboratory instruments used in the analysis, construction, and troubleshooting of AC and DC circuits.
- D. apply specific sections of the national electrical code to electrical systems.

This program prepares students for jobs installing, repairing, maintaining and servicing electrical and electronics equipment. Electrical/electronics jobs are found in the fields of electrical, medical, industrial, commercial systems, programmable logic controller systems, automotive, communications and others. The following courses are part of the Electricians Trainee Program and approved by the Division of Apprenticeship Standards: ELECT-120, 121, 130, 220, 230, 266, 267, 271, ELTRN-210 and CNT-103.

Selected courses may meet some of the lower division requirements for bachelor of science programs in engineering technology and industrial technology at certain California State University campuses and private technical colleges. Consult with electronics department faculty and college counselors for more information.

To earn an associate in science with a major in electricity/electronics, students must complete each course used to meet a major requirement with a "C" grade or higher, maintain an overall GPA of 2.5 or higher in the coursework required for the major and complete general education requirements as listed in the catalog. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

<i>required courses:</i>	<i>units</i>
ELECT-266 Electrical Codes: Articles 90-398.....	3

plus at least 4 units from:

ELECT-120 Direct Current Circuits	4
ELTRN-120 Direct Current Circuits	4

plus at least 4 units from:

ELECT-121 Alternating Current Circuits	4
ELTRN-121 Alternating Current Circuits	4

plus at least 12 units from:

ELECT-130 Motor and Motor Controllers	4
ELECT-220 Circuit Diagnosis and Analysis: Troubleshooting	2
ELECT-230 Electro-Mechanical Equipment	2
ELECT-271 Programmable Logic Controllers	4
ELTRN-210 Linear Circuits	4

plus at least 3 units from any course not used above, or:

CNT-103 Voice, Video and Network Cabling.....	2
CONST-110 Occupational Safety.....	2
ELECT-267 Electrical Codes: Articles 400-830.....	3
ELTRN-107 Introduction to Robotics	2
ELTRN-116 Electronics I.....	3

total minimum units for the major 26

**Certificate of achievement
Electrical/electronics technology**

Students completing the program will be able to...

- A. identify common electrical circuit components and their use.
- B. solve AC and DC circuits for voltage, current, resistance, power, and other parameters.
- C. operate and understand common laboratory instruments used in the analysis, construction, and troubleshooting of AC and DC circuits.
- D. apply specific sections of the national electrical code to electrical systems.

This program prepares students for jobs installing, repairing, maintaining and servicing electrical and electronics equipment. Electrical/electronics jobs are found in the fields of electrical, medical, industrial, commercial systems, programmable logic controller systems, automotive, communications and others. The following courses are part of the Electricians Trainee Program and approved by the Division of Apprenticeship Standards: ELECT-120, 121, 130, 220, 230, 266, 267, 271, ELTRN-210 and CNT-103.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher and maintain an overall GPA of 2.5 or higher in the coursework required for the certificate.

<i>required courses:</i>	<i>units</i>
ELECT-266 Electrical Codes: Articles 90-398.....	3

plus at least 4 units from:

ELECT-120 Direct Current Circuits	4
ELTRN-120 Direct Current Circuits	4

plus at least 4 units from:

ELECT-121 Alternating Current Circuits	4
ELTRN-121 Alternating Current Circuits	4

plus at least 12 units from:

ELECT-130 Motors and Motor Controllers	4
ELECT-220 Circuit Diagnosis and Analysis: Troubleshooting	2
ELECT-230 Electro-Mechanical Equipment	2
ELECT-271 Programmable Logic Controllers	4
ELTRN-210 Linear Circuits	4

plus at least 3 units from any course not used above, or:

CNT-103 Voice, Video and Network Cabling.....	2
CONST-110 Occupational Safety.....	2
ELECT-267 Electrical Codes: Articles 400-830.....	3
ELTRN-107 Introduction to Robotics	2
ELTRN-116 Electronics I.....	3

total minimum required units 26

**Certificate of accomplishment
Electrical/electronics technology**

Students completing the program will be able to...

- A. identify common electrical circuit components and their use.
- B. solve AC and DC circuits for voltage, current, resistance, power, and other parameters.
- C. operate and understand common laboratory instruments used in the analysis, construction, and troubleshooting of AC and DC circuits.
- D. apply specific sections of the national electrical code to electrical systems.

To earn a certificate of accomplishment, students must complete each course used to meet a certificate requirement with a "C" grade or higher and maintain an overall GPA of 2.5 or higher in the coursework required for the certificate.

<i>required courses:</i>	<i>units</i>
ELECT-266 Electrical Codes: Articles 90-398.....	3

plus at least 4 units from:

ELECT-120 Direct Current Circuits	4
ELTRN-120 Direct Current Circuits	4

plus at least 4 units from:

ELECT-121 Alternating Current Circuits	4
ELTRN-121 Alternating Current Circuits	4

total minimum required units 11

ELECT-110 Survey of Electricity

2 units SC

- 27 hours lecture/27 hours laboratory per term
- Recommended: MATH-090 or MATH-090E or MATH-090SP or equivalent
- Note: This course does not meet a requirement of the electronics/electricity degree or certificate. Credit by examination option available.

This is a survey course in electrical concepts, components, systems, and equipment. Ohm's and Kirchoff's laws are used to calculate and measure resistance, voltage, amperage, and power in circuits. AC components, such as coils, transformers, capacitors, and motors are also covered. Students will build and measure circuits and everyday electrical devices using both digital and analog equipment with an emphasis on practical aspects of circuits and components. CSU

ELECT-120 Direct Current Circuits

4 units LR

- 54 hours lecture/54 hours laboratory per term
- Note: This course is approved by the Division of Apprenticeship Standards in the electrician trainee program.

This course introduces scientific principles and hands-on applications of direct current (DC) electricity, focusing on measurement and diagnosis of series, parallel, and combination circuits. These fundamental knowledge and skills are necessary for those planning careers and/or further study in electronics, electricity, or related fields, such as heating, ventilation, and air conditioning (HVAC), building systems, industrial maintenance, electrical/electronics (EE) technology, and energy systems. CSU

ELECT-121 Alternating Current Circuits

4 units LR

- 54 hours lecture/54 hours laboratory per term
- Recommended: ELECT-120 or equivalent
- Note: This course is approved by the Division of Apprenticeship Standards in the electrician trainee program.

This course is an in-depth study of the theory and application of alternating current (AC) including series, parallel, and combination resistive/inductive (RL), resistive/capacitive (RC), and resistive/inductive/capacitive (RLC) circuits. Students will construct, measure, and analyze circuits using computer simulation and actual components with signal generators and oscilloscopes. CSU

ELECT-130 Motors and Motor Controllers

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Recommended: ELECT-120 or equivalent

This course introduces the function, operation and characteristics of various types of direct current, alternating current, single phase and three phase motors. The course will explore the basic principles and practices of electric motor control including electro-mechanical and solid state digital devices, ladder logic, standard circuits, starters, transformers, relays, timers, and other devices. CSU

ELECT-150 Topics in Electricity

.3-4 units SC

- Variable hours

A supplemental course in electricity designed to provide a study of current concepts and problems in electricity. Specific topics will be announced in the schedule of classes. CSU

ELECT-220 Circuit Diagnosis and Analysis: Troubleshooting

2 units SC

- 27 hours lecture/27 hours laboratory per term
- Prerequisite: ELECT-120 or equivalent
- Recommended: ELECT-121 or equivalent

This course presents troubleshooting of electro-mechanical systems and sub-systems for various machines and equipment used in residences, commercial buildings, and industrial complexes. Emphasis is placed on developing skills in reading and understanding diagrams in conjunction with proper troubleshooting procedures. Several types of diagrams will be examined during this course including block, pictorial, single-line, ladder, wiring, terminal, schematic, and esterline. CSU

ELECT-230 Electro-Mechanical Equipment

2 units SC

- 27 hours lecture/27 hours laboratory per term
- Prerequisite: ELECT-120 or equivalent
- Recommended: ELECT-121 or equivalent

This course presents the identification, installation, operation, and maintenance of residential/commercial/industrial systems and components. The focus is on electrical components and systems, which are related to interface devices such as mechanical, hydraulic, and pneumatic systems and their controllers. CSU

ELECT-266 Electrical Codes: Articles 90-398

3 units SC

- 54 hours lecture per term
- Note: Same as CONST-266. Students may petition to repeat when code changes. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course covers the interpretation of the National Electrical Code (NEC) for general requirements, wiring and protection, wiring methods and materials (articles 90-398). Safety installation practices will be presented.

ELECT-267 Electrical Codes: Article 400-830

3 units SC

- 54 hours lecture per term
- Note: Same as CONST-267. Students may petition to repeat when code changes. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course covers the interpretation of the National Electrical Code (NEC) for equipment for general use, special occupancies and special equipment (articles 400-830). Safety installation practices will be presented.

ELECT-271 Programmable Logic Controllers

4 units LR

- 54 hours lecture/54 hours laboratory per term
- Recommended: ELECT-120 or equivalent

This course introduces the fundamentals of Programmable Logic Controllers (PLCs) and associated programs, which are used in industrial, commercial, and process applications. Students will program, maintain, troubleshoot, and modify PLCs and controlled systems. Software interfaces will be used to write, enter, and execute PLC applications. CSU

ELECT-299 Student Instructional Assistant

.5-3 units SC

- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

ELTRN-107 Introduction to Robotics

2 units SC

- 27 hours lecture/27 hours laboratory per term
- Note: Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree. Credit by examination option available.

This course introduces the science and technology involved in robotic systems. Beyond basic science, topics include input and output devices and programmable controllers and programming coding. Working independently or in teams, students will design and build circuits and kinematic structures that sense and interact with their environment. Using simple programming languages, students will work with a variety of microprocessors, including Arduino, Parallax, VEX, Lego, and others. This course prepares students for more advanced studies in robotics and related technologies, such as those used in building controls systems and industrial applications. CSU

ELTRN-116 Electronics I

3 units SC

- 45 hours lecture/27 hours laboratory per term
- Note: Credit by examination option available.

This course is an overview of electronic circuit fundamentals and devices. Students will construct, analyze, verify, and troubleshoot common electronic circuits using appropriate techniques and test equipment. CSU

ELTRN-120 Direct Current Circuits

4 units LR

- 54 hours lecture/54 hours laboratory per term

This course introduces the scientific principles and hands-on applications of direct current (DC) electricity. Topics include measurement and diagnosis of series, parallel, combination circuits, basic DC industrial control circuits, and commercial and residential circuits. In laboratory, students will use basic electrical test instruments and participate in building and software simulation of electrical circuits. CSU

ELTRN-121 Alternating Current Circuits

4 units LR

- 54 hours lecture/54 hours laboratory per term
- Recommended: ELTRN-120 or equivalent

This course is a continuation of ELTRN-120 and presents an in-depth study of alternating current (AC) circuits involving capacitance and inductance. Topics include resistor-inductor (RL), resistor-capacitor (RC), resistor-inductor-capacitor (RLC), and resonant circuits, three phase circuits and computer-simulated circuits. In laboratory, students will apply the principles of AC circuitry to real life applications. CSU

ELTRN-150 Topics in Electronics

.3-4 units SC

- Variable hours

A supplemental course in electronics to provide a study of current concepts and problems in electronics and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

ELTRN-210 Linear Circuits

4 units LR

- 54 hours lecture/54 hours laboratory per term
- Recommended: ELECT-121 or equivalent
- Note: This course is part of the Electrician Trainee Program approved by the Division of Apprenticeship Standards
- Formerly ELTRN-102B

A study of operational amplifiers, timers, phase-locked loops, and other active devices. Includes analysis and design of basic circuits such as active filters and analog communication circuits. Also includes related laboratory experience. CSU

ELTRN-299 Student Instructional Assistant

.5-3 units SC

- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

ENERGY SYSTEMS – ENSYS

Joseph Gorga, Dean
 Physical Sciences and Engineering Division
 Physical Sciences Building, Room 263

Possible career opportunities

An area of increasing job opportunities is in the various fields of alternate or renewable energy. This includes areas related to solar photovoltaics, solar water heating, wind energy systems, biodiesel and biofuels, biomass, fuel cells and related hydrogen energy devices and other small technologies. Most of the jobs in these areas are involved with the installation, design or maintenance of these systems. Most of these areas require skills in electricity, science, and math.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in science degree

Energy systems

Students completing the program will be able to...

- A. identify, measure, and analyze the major energy uses in typical businesses operations, focusing beyond the building and into processes.
- B. demonstrate the electrical and energy systems skills to successfully interact with builders, architects, engineers, and constructors and advise on building and systems energy use.
- C. design medium complexity solar photovoltaic or other energy system for medium size commercial buildings and processes.

This program provides students with a broad view of energy and energy systems and specific skills for those planning on entering the field designing, installing, servicing/repairing and maintaining renewable/sustainable energy systems. This includes wind energy, biodiesel and biofuels, biomass, fuel cells, hydrogen, and other technologies.

To earn an associate in science degree, students must complete each course used to meet a major requirement with a "C" grade or higher, maintain an overall GPA of 2.5 or higher in the coursework required for the major and complete general education requirements as listed in the catalog.

major requirements:	units
ENSY-120 Introduction to Energy Systems	3
ENSY-125 Building Envelope and Systems	3
ENSY-130 Photovoltaic Systems Design and Installation	2
ENSY-230 Advanced Photovoltaic Systems	2

plus at least 4 units from:

ELECT-120 Direct Current Circuits	4
ELTRN-120 Direct Current Circuits	4

plus at least 12 units from:

ARCHI-207 Environmental Control Systems	3
CONST-110 Occupational Safety.....	2
CONST-183 Title 24: Energy Conservation Codes	3
ELECT-121 Alternating Current Circuits	4
ELECT-266 Electrical Codes: Articles 90-398.....	3
ELECT-267 Electrical Codes: Articles 400-830.....	3
ENSY-260 Solar Photovoltaic and Thermal Installation Techniques	2
total minimum required units	26

Certificate of achievement

Energy systems

Students completing the program will be able to...

- A. identify, measure, and analyze the major energy uses in typical businesses operations, focusing beyond the building and into processes.
- B. demonstrate the electrical and energy systems skills to successfully interact with builders, architects, engineers, and constructors and advise on building and systems energy use.
- C. design medium complexity solar photovoltaic or other energy system for medium size commercial buildings and processes.

This program provides students with a broad view of energy and energy systems and specific skills for those planning on entering the field designing, installing, servicing/repairing and maintaining renewable/sustainable energy systems. This includes wind energy, biodiesel and biofuels, biomass, fuel cells, hydrogen, and other technologies.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher and maintain an overall GPA of 2.5 or higher in the coursework required for the certificate.

required courses:	units
ENSY-120 Introduction to Energy Systems	3
ENSY-125 Building Envelope and Systems	3
ENSY-130 Photovoltaic Systems Design and Installation	2
ENSY-230 Advanced Photovoltaic Systems	2

plus at least 4 units from:

ELECT-120 Direct Current Circuits	4
ELTRN-120 Direct Current Circuits	4

plus at least 12 units from:

ARCHI-207 Environmental Control Systems	3
CONST-110 Occupational Safety.....	2
CONST-183 Title 24: Energy Conservation Codes	3
ELECT-121 Alternating Current Circuits	4
ELECT-266 Electrical Codes: Articles 90-398.....	3
ELECT-267 Electrical Codes: Articles 400-830.....	3
ENSY-260 Solar Photovoltaic and Thermal Installation Techniques	2
total minimum required units	26

Certificate of accomplishment**Energy systems**

Students completing the program will be able to...

- identify, measure, and analyze the major energy uses in typical businesses operations, focusing beyond the building and into processes.
- demonstrate the electrical and energy systems skills to successfully interact with builders, architects, engineers, and constructors and advise on building and systems energy use.
- design medium complexity solar photovoltaic or other energy system for medium size commercial buildings and processes.

This program provides students with a broad view of energy, energy systems, and specific entry-level skills for those planning on entering the field of installing, servicing/repairing, and maintaining renewable/sustainable energy systems with a focus on photovoltaic systems. Technologies include wind energy, biodiesel and biofuels, biomass, fuel cells, hydrogen, and other technologies.

To earn a certificate of accomplishment, students must complete each course used to meet a certificate requirement with a "C" grade or higher and maintain an overall GPA of 2.5 or higher in the coursework required for the certificate.

<i>required courses:</i>	<i>units</i>
ENSY-120 Introduction to Energy Systems	3
ENSY-125 Building Envelope and Systems	3
ENSY-130 Photovoltaic Systems Design and Installation	2
ENSY-230 Advanced Photovoltaic Systems	2

plus at least 4 units from:

ELECT-120 Direct Current Circuits	4
ELTRN-120 Direct Current Circuits	4

total minimum required units 14

ENSY-120 Introduction to Energy Systems

3 units SC

- 45 hours lecture/27 hours laboratory per term

This course provides an introduction to energy and energy conversion systems and examines issues related to the sustainability of each system. Renewable energy sources, such as hydro, wind, and solar as well as geothermal, fuel cells, and nuclear are examined. The use and impacts of traditional energy resources such as fuels, wood, coal, oil, and natural gas are also discussed. Energy policy, efficiency, conservation, storage, climate change, and demand side management are also examined. CSU

ENSY-125 Building Envelope and Systems

3 units SC

- 45 hours lecture/27 hours laboratory per term
- Recommended: ENSY-120 or equivalent and MATH-090 or MATH-090E or MATH-090SP or equivalent

This course provides an introduction to buildings and building systems, including the envelope and major electro-mechanical equipment used in the building. Students will gain knowledge of and experience with various strategies and tools used to measure and analyze building energy use such as infrared thermography, duct and envelope leak testers, light and sound meters, energy analysis programs. Mitigation strategies to save energy and improve occupancy health are emphasized. CSU

ENSY-130 Photovoltaic Systems Design and Installation

2 units SC

- 36 hours lecture/18 hours laboratory per term

This course presents an introduction to the theory, application, installation, and operation of photovoltaic systems. Topics include performance of solar site evaluations, calculation of electrical loads, sizing panel arrays, and techniques for installation of photovoltaic systems. This course is approved by the North American Board of Certified Energy Practitioners (NABCEP) and upon completion of the course, students will be eligible to sit for the Photovoltaic Systems Associate certification exam. CSU

ENSY-150 Topics in Energy Systems

.3-4 units SC

- Variable hours

A supplemental course in energy systems that provides a study of current concepts and practices in energy systems and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

ENSY-230 Advanced Photovoltaic Systems

2 units SC

- 27 hours lecture/27 hours laboratory per term
- Recommended: ENSY-130 or equivalent

This course presents intermediate and advanced theories and skills for photovoltaic systems. Topics include installation, maintenance, evaluation, troubleshooting, and repair of commercial photovoltaic systems, including application of all applicable codes. CSU

ENSYS-260 Solar Photovoltaic and Thermal Installation Techniques

- 2 units LR
- 27 hours lecture/27 hours laboratory per term
 - Recommended: ENSYS-130 and ENSYS-140 or equivalents
 - Note: This course will include activities working with high voltages, hot liquids, power tools, and working on elevated surfaces. Class activities include climbing ladders, lifting up to 50 pounds and working in elevated spaces, in crawl spaces and tight areas.

This course will cover the techniques, tools, materials used in the installation of solar photovoltaic and solar thermal systems. This course will also cover the OSHA safety requirements for ladder, roof, fall-protection systems, scissor lifts and fork lifts. CSU

ENSYS-299 Student Instructional Assistant

- .5-3 units SC
- Variable hours
 - Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

ENGINEERING – ENGIN

Joseph Gorga, Dean
 Physical Sciences and Engineering Division
 Physical Sciences Building, Room 263

Possible career opportunities

The engineering transfer program prepares students to enter four-year engineering schools as juniors. Upon completion of the B.S., students can become electrical, civil, mechanical, chemical, materials, aerospace or industrial engineers.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

**Associate in science degree
 Civil engineering**

Students completing the program will be able to...

- apply the skills and knowledge acquired to analyze issues, solve problems, and critically evaluate a proposal or a process.
- use appropriate quantitative tools to answer scientific questions, represent data, and document scientific findings.
- demonstrate effective communication with fellow team members, the public, and members of the scientific community, using written, oral, and visual communication methods.
- safely and appropriately use standard laboratory or field equipment to make precise and reliable measurements.
- analyze the internal forces and moments in statically determinate structures.

The associate in science degree in civil engineering (ASCE) is offered to prepare students to transfer to a four-year institution in the civil engineering major.

The graduates of this program will be able to apply the basic principles of civil engineering to a variety of technical projects related to the design, construction, managing and sustaining of a wide range of developments such as structural systems, buildings, highways, waterways, lifelines, and infrastructures.

The DVC ASCE degree is intended for transfer. Degree requirements at four-year programs differ from institution to institution, so students wishing to transfer to a particular four-year program must consult with a counselor regarding specific major requirements of a particular university program. Additionally, students are advised that other courses in math, physics and chemistry may be required and that engineering courses have science and math prerequisites. It is recommended that the students contact the counseling office for advisement regarding appropriate sequencing. Finally, the ASCE is a high-unit major; students are advised to meet with a counselor to determine appropriate general education courses to complete their degree requirements.

To earn an ASCE degree students must complete each course used to meet a major requirement with a "C" grade or higher and complete general education requirements as listed in the catalog. Major requirements may be taken on a "for grade" basis. Certain courses may satisfy both major and general education requirements; however the units are only counted once.

<i>major requirements:</i>		<i>units</i>
CHEM-120*	General College Chemistry I.....	5
ENGIN-110	Introduction to Engineering	3
ENGIN-120	Engineering Drawing	3
ENGIN-230*	Introduction to Circuits and Devices	4
ENGIN-240*	Properties of Engineering Materials	4
ENGIN-255*	Statics.....	3
MATH-192*	Analytic Geometry and Calculus I	5
MATH-193*	Analytic Geometry and Calculus II	5
MATH-292*	Analytic Geometry and Calculus III	5
MATH-294*	Differential Equations	5
PHYS-130*	Physics for Engineers and Scientists A: Mechanics and Wave Motion.....	4
PHYS-230*	Physics for Engineers and Scientists B: Heat and Electro-magnetism.....	4

plus at least 3 units from:

ENGIN-135	Programming for Scientists and Engineers.....	4
ENGIN-136*	Computer Programming for Engineers Using MATLAB.....	4
ENGIN-140*	Plane Surveying.....	4
ENGIN-257*	Statics and Strength of Materials	3

total minimum units for the major 53

*These courses have prerequisites. See a counselor for program sequence.

Associate in science degree Electrical engineering and computer engineering

Students completing the program will be able to...

- apply analysis tools and computer tools in problem solving.
- identify interdisciplinary aspects of engineering projects.
- apply software engineering principles and procedures.
- do computer algorithm development using C and C++ techniques.
- understand the operation and control of electrical measuring equipment.
- use computer programming skills to develop software for automation, decision making and control of equipment.
- develop test software for evaluation of digital circuits.
- analyze the operation of small scale digital and analog circuits.
- design simple operational amplifier circuits.
- demonstrate knowledge of magnetism and its applications in the design of transformers and actuators.
- assemble and test digital and analog circuits from circuit diagrams.

The associate degree program in electrical engineering and computer engineering (EECE) prepares the students for a career in the EECE field or to transfer to a four-year degree program. Graduates entering the workforce will be able to perform the tasks typically expected of an assistant engineer. Students who intend to transfer are advised to select general education Option 2 (IGETC) or Option 3 (CSU GE). General education option 1 (DVC general education) is appropriate for students who do not intend to transfer.

Most core requirement courses have math and science prerequisites. Students must see a counselor for planning appropriate coursework sequence.

To earn an associate degree in electrical engineering and computer engineering, students must complete the core requirements with a "C" grade or higher. Students must also complete general education requirements as listed in the catalog. Certain courses may satisfy both major and general education requirement; however the units are only counted once.

major requirements:		units
CHEM-120*	General College Chemistry I.....	5
COMSC-165*	Advanced Programming with C and C++.....	4
COMSC-210*	Program Design and Data Structures.....	4
ENGIN-110	Introduction to Engineering	3
ENGIN-230*	Introduction to Circuits and Devices	4
MATH-192*	Analytic Geometry and Calculus I	5
MATH-193*	Analytic Geometry and Calculus II	5
MATH-292*	Analytic Geometry and Calculus III	5
MATH-294*	Differential Equations.....	5
PHYS-130*	Physics for Engineers and Scientists A: Mechanics and Wave Motion.....	4
PHYS-230*	Physics for Engineers and Scientists B: Heat and Electro-Magnetism.....	4
PHYS-231*	Physics for Engineers and Scientists C: Optics and Modern Physics.....	4

plus at least 3 units from:

ENGIN-120	Engineering Drawing.....	3
ENGIN-121	Engineering Drawing/Descriptive Geometry...3	
ENGIN-135	Programming for Scientists and Engineers.....	4
ENGIN-136*	Computer Programming for Engineers Using MATLAB.....	4
ENGTC-126	Computer Aided Design and Drafting - Auto CAD.....	3
MATH-194*	Linear Algebra.....	3
MATH-195*	Discrete Mathematics	4

total minimum units for the major 55

*Certain courses required for this degree have prerequisite coursework that could add additional units.

Associate in science degree Mechanical engineering

Students completing the program will be able to...

- apply the skills and knowledge acquired to analyze issues, solve problems, and critically evaluate a proposal or a process.
- use appropriate quantitative tools to answer scientific questions, represent data, and document scientific findings.
- demonstrate effective communication with fellow team members, the public, and members of the scientific community, using written, oral, and visual communication methods.
- safely and appropriately use standard laboratory or field equipment to make precise and reliable measurements.

The associate in science degree in mechanical engineering (ASME) is designed to prepare mechanical engineering students for transfer to a four-year institution. This program enables graduates to apply basic engineering principles and technical skills in support of engineers engaged in the design and development phases of a wide variety of projects involving mechanical systems.

The DVC ASME degree is intended for transfer. Degree requirements at four-year programs differ from institution to institution, so students wishing to transfer to a particular four-year program must consult with a counselor regarding specific major requirements of a particular university program. Additionally, students are advised that other courses in math, physics and chemistry may be required and that engineering courses have science and math prerequisites. It is recommended that the students contact the counseling office for advisement regarding appropriate sequencing. Finally, the ASME is a high-unit major; students are advised to meet with a counselor to determine appropriate general education courses to complete their degree requirements.

To earn an ASME degree students must complete each required course for the major with a "C" grade or higher and complete all the requirements as listed in the catalog. Major requirements may be taken only on a "for grade" basis. Certain courses may satisfy both major and general education requirements; however the units are only counted once.

<i>major requirements:</i>	<i>units</i>
CHEM-120* General College Chemistry I.....	5
ENGIN-110 Introduction to Engineering	3
ENGIN-120 Engineering Drawing.....	3
ENGIN-230* Introduction to Circuits and Devices	4
ENGIN-240* Properties of Engineering Materials	4
ENGIN-255* Statics.....	3
MATH-192* Analytic Geometry and Calculus I.....	5
MATH-193* Analytic Geometry and Calculus II	5
MATH-292* Analytic Geometry and Calculus III	5
MATH-294* Differential Equations.....	5
PHYS-130* Physics for Engineers and Scientists A: Mechanics and Wave Motion.....	4
PHYS-230* Physics for Engineers and Scientists B: Heat and Electro-magnetism.....	4

plus at least 3 units from:

ENGIN-135 Programming for Scientists and Engineers.....	4
ENGIN-136* Computer Programming for Engineers Using MATLAB.....	4
ENGIN-257* Statics and Strength of Materials	3

total minimum units for the major 53

*These courses have prerequisites. See counselor for program sequence.

ENGIN-110 Introduction to Engineering

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Credit by examination option available.

This course is an introduction to different engineering disciplines and careers, the role of an engineer in society, engineering ethics, the engineering approach to problem-solving, engineering design process and project development, engineering analysis, concurrent engineering, and application of computers in engineering including design and presentation tools. The emphasis is on hands-on creative problem-solving, teamwork, and effective communication. Students will develop design, analysis, and computer skills through work on projects drawn from various engineering majors. C-ID ENGR-110, CSU, UC

ENGIN-120 Engineering Drawing

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: MATH-114 and ENGIN-119 or equivalents

This course presents modern drafting using board techniques as well as computer aided design (CAD) principles. Orthographic, oblique, and perspective projection of objects and visualization of the object from projected views are emphasized. Other topics include relationships of points, lines, and planes as well as auxiliary views, dimensioning, tolerancing, threads and fasteners. During the CAD part of the course, students use solid modeling techniques and methods to produce working drawings from CAD solids. CSU, UC

ENGIN-121 Engineering Drawing/Descriptive Geometry

3 units LR

- 36 hours lecture/72 hours laboratory per term
- Recommended: ENGIN-120 or equivalent and MATH-121 or equivalent (may be taken concurrently)

This course covers space relationships of points, lines, and surfaces. Double auxiliaries, curved and warped surfaces, intersections, developments and vector analysis are presented in relation to solving problems. Three-dimensional (3D) computer aided drafting (CAD) systems and solid modeling for civil engineering and mechanical engineering problems are also introduced. CSU, UC

ENGIN-130 Energy, Society, and the Environment

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 and MATH-090 or equivalents

This course presents an introduction to the sources, uses, economics, and environmental impacts of energy in contemporary society. The role of non-renewable and renewable energy systems and technologies in creating and maintaining sustainable energy systems is emphasized. CSU, UC

ENGIN-131 Technology and Society

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course will explore the interrelationships between technology and the social sciences. Specifically, the course will investigate the societal factors that impact technology (historical, political, economic, ethical and environmental), and the ways in which technology affects society (language, art, music, psychology and sociology). This course is appropriate for students in both technical and non-technical majors. CSU, UC

ENGIN-135 Programming for Scientists and Engineers

- 4 units LR
- 54 hours lecture/54 hours laboratory per term
 - Prerequisite: MATH-192 (may be taken concurrently) or equivalent
 - Recommended: Eligibility for ENGL-122 or equivalent

This course presents an introduction to programming in C/C++ for engineers and scientists. Topics include flowcharts, algorithm design principles, algebraic operations, decision making, loops, records, data structures, file input output operations and linked lists. Students will apply programming principles of numerical methods in science and engineering. CSU, UC

ENGIN-136 Computer Programming for Engineers Using MATLAB

- 4 units LR
- 54 hours lecture/54 hours laboratory per term
 - Prerequisite: MATH-192 or equivalent
 - Recommended: MATH-193 or equivalent (may be taken concurrently)

The methods of problem solving and data visualization in engineering and science using the MATLAB programming language will be introduced. Topics include numerical integration and differentiation, solution of systems of equations, regression, roots of equations and solution of differential equations. Programming with functions, local and global variables, file input and output, data formatting, induction, iteration, recursion and elements of object oriented programming will also be covered. C-ID ENGIN 220, CSU, UC

ENGIN-140 Plane Surveying

- 4 units SC
- 54 hours lecture/54 hours laboratory per term
 - Prerequisite: MATH-121 or equivalent
 - Note: Same as CONST-116

This course covers the principles and practices of surveying including measurement of distances, directions, elevations and measuring standards. An introduction to electronic measurements and calibration as well as systematic and random-error analysis is presented. Students will use surveying instruments, perform Global Positioning System (GPS) measurements, and gain experience with map reading and mapping. CSU, UC

ENGIN-150 Topics in Engineering

- .3-4 units SC
- Variable hours

A supplemental course in engineering designed to provide a study of the current concepts and problems in engineering. Specific topics will be announced in the schedule of classes. CSU

ENGIN-210 Thermodynamics

- 3 units LR
- 54 hours lecture/18 hours laboratory per term
 - Prerequisite: CHEM-120 and PHYS-230 or equivalents

This course introduces the fundamentals of energy storage, thermophysical properties of liquids and gases, and the basic principles of thermodynamics. The course focuses on application of the concepts to various areas of engineering related to energy conversion and air conditioning. The use of computing tools that facilitate problem solving, design analysis, and parametric studies in thermodynamics will be integrated throughout the course. CSU, UC

ENGIN-230 Introduction to Circuits and Devices

- 4 units LR
- 54 hours lecture/54 hours laboratory per term
 - Prerequisite: MATH-193 or equivalent and PHYS-230 or equivalent
 - Recommended: Eligibility for ENGL-122 or equivalent

The course covers the subjects of electrical quantities, Ohm's law, Kirchoff's network theorems, AC and DC circuit analysis, transient and steady state response of circuits, digital circuits, solid state devices, magnetism and magnetic circuits. CSU, UC

ENGIN-240 Properties of Engineering Materials

- 4 units LR
- 54 hours lecture/72 hours laboratory per term
 - Prerequisite: CHEM-120 and PHYS-130 or equivalents

This course is a study of properties of engineering materials as related to their atomic, microscopic, and macroscopic structures. The application of the basic principles of physics and chemistry to the engineering properties of materials will be covered. Special emphasis will be devoted to the relation between microstructure and the mechanical properties of metals, concrete, polymers, and ceramics, and the electrical properties of semiconducting materials. C-ID ENGR 140B, CSU, UC

ENGIN-255 Statics

- 3 units LR
- 54 hours lecture per term
 - Prerequisite: PHYS-130 or equivalent and MATH-193 or equivalent
 - Recommended: ENGIN-135 or ENGIN-136 or equivalent and eligibility for ENGL-122 or equivalent

This course is a study of the effects of concentrated and distributed forces on the equilibrium of rigid bodies, structures, beams, flexible cables and fluid statics. The application of the method of sections and free body diagrams to solve truss problems will be covered. Wedges, screws, bearings, brakes and other problems involving friction will be examined. Virtual work and potential energy methods in the determination of equilibrium conditions in machines and structures will also be discussed. CSU, UC

ENGIN-257 Statics and Strength of Materials

- 3 units LR
- 54 hours lecture per term
 - Prerequisite: PHYS-130 and MATH-193 or equivalents
 - Recommended: MATH-194 or equivalent

This course is a study of mechanics and strength of materials, including equilibrium of particles and rigid bodies, analysis of truss and frame structures, concepts of stress and strain, linear elastic materials, axially-loaded structural elements, bending and torsion in circular and hollow shafts. Deflection of beams, buckling of columns and energy methods are also discussed. CSU, UC

ENGIN-298 Independent Study

- .5-3 units SC
- Variable hours
 - Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

ENGIN-299 Student Instructional Assistant

- .5-3 units SC
- Variable hours
 - Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

**Associate in science degree
Civil design drafting technology**

Students completing the program will be able to...

- use technical drafting principles to develop technical drawings.
- interpret construction blueprints.
- use geometric construction and descriptive geometry to solve geometric problems.
- create 2-dimensional and 3-dimensional computer aided drawings (CAD).
- interpret global positioning data.
- measure land forms using ground surveying equipment.
- apply trigonometry to math problems.
- apply the basic laws of physics to everyday situations.

The associate in science degree in civil design drafting technology provides students with the technical and analytical skills needed for employment in the field of civil engineering drafting. Through both academic and laboratory study students gain the practical skills needed for entry into the job market. For example, civil drafters may work on plans for major construction projects such as dams, roads, bridges, and sewage systems; or prepare, interpret and revise topographic and/or relief maps using computer-aided-drafting (CAD).

To earn the degree, students must complete each course used to meet a major requirement with a "C" grade or higher and complete general education requirements as listed in the catalog. Students who wish to transfer should consult with program faculty and college counselors to ensure that the requirements for transfer to appropriate institutions are met. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

<i>major requirements:</i>		<i>units</i>
CONST-114	Print Reading.....	3
ENGIN-121	Engineering Drawing/Descriptive Geometry.....	3
PHYS-110	Elementary Physics.....	3

<i>plus at least 3 units from:</i>		
ENGTC-111	Mathematics for Technicians.....	3
MATH-121	Plane Trigonometry	3
MATH-191	Pre-Calculus.....	5

<i>plus at least 3 units from:</i>		
ARCHI-119	Introduction to Technical Drawing.....	3
ENGTC-119	Introduction to Technical Drawing.....	3

<i>plus at least 3 units from:</i>		
ARCHI-126	Computer Aided Design and Drafting - AutoCAD.....	3
ENGTC-126	Computer Aided Design and Drafting - AutoCAD.....	3

ENGINEERING TECHNOLOGY - ENGTC

Joseph Gorga, Dean
Physical Sciences and Engineering Division
Physical Sciences Building, Room 263

Possible career opportunities

Career options in engineering technology include civil engineering technicians, surveying and mapping technicians (cartography), architectural and civil drafters, and mechanical engineering technicians. Engineering technicians may work as computer-aided design drafters, engineering aides, land surveyors, field assistants, planning technicians and technical sales people.

plus at least 3 units from:

ARCHI-226	Computer Aided Drafting Design, Advanced Concepts - AutoCAD.....	3
ENGTC-226	Computer Aided Drafting Design, Advanced Concepts - AutoCAD.....	3

plus at least 3 units from:

GEOG-124	Thinking and Communicating Geospatially.....	3
GEOG-129	Field Data Acquisition and Management	3

plus at least 6 units from:

CONST-116	Plane Surveying.....	4
ENGIN-140	Plane Surveying.....	4
ENGTC-123	Principles of Civil Drafting.....	3
GEOG-125	Introduction to Geographic Information Systems (GIS).....	3
GEOG-126	Advanced Geographic Information Systems ...	3
GEOG-160	Introduction to Remote Sensing.....	4
GEOG-162	Map Design and Visualization.....	3

total minimum units for the major 30

**Associate in science degree
Machining for mechanical engineering
technology**

Students completing the program will be able to...

- A. read the drawing for an object and visualize the geometry.
- B. choose the correct manufacturing method for the object.
- C. manufacture an object from a given drawing using machine tools.
- D. use algebra, spreadsheets and measurement data to produce QC statistics.
- E. verify that products meet the design criteria.
- F. design and prototype mechanical parts under the supervision of engineers.
- G. use computer integrated manufacturing (CIM) and computer numerical control (CNC) software for automation of manufacturing.

The associate of science degree in machining for mechanical engineering technology is offered to prepare students with the required aptitude and skills to enter the workforce as entry-level machinists, tool and die makers, or mold makers. Students will be prepared for careers that are highly in demand for aerospace, medical, electronic, high tech, and automotive and transport industries. Graduates of this program will be well equipped to continue their career advancement as engineers, product developers, prototype/model builders, production machinist, or electro-mechanical maintenance and repair specialists.

Students completing this program will develop familiarity with lathes, mills, drill presses, and precision measuring. They will also be introduced to the concepts of computer numerical control (CNC) machines and 3D (additive) manufacturing processes, geometric dimension and tolerance (GD&T), and modern technical drawing (CAD) techniques.

The DVC machining for mechanical engineering technology major is not intended for transfer. Option 1 (DVC General Education) is advised for students who do not intend to transfer. Students who intend to transfer to a four-year baccalaureate program should consult with a counselor regarding specific major preparation requirements at the transfer institution of their choice. Students who intend to transfer are advised to select General Education Option 2 (IGETC) or Option 3 (CSU GE).

Students must complete each of the courses required for the major with a "C" grade or higher. Students may not take a pass/no pass option for major courses. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

major requirements:	units	
ENGTC-119	Introduction to Technical Drawing.....	3
ENGTC-126	Computer Aided Design and Drafting-AutoCAD.....	3
ENGTC-129	Product Design I Using Solidworks	3
ENGTC-160	Introduction to Industrial and Manufacturing Engineering	3
ENGTC-162	Geometric Dimensioning and Tolerancing	1
ENGTC-165	Machining and Manufacturing I	3
ENGTC-166	Machining and Manufacturing II	3
ENGTC-168	Introduction to Computer Numerical Control... 3	3

plus at least 3 units from:

ENGTC-111	Mathematics for Technicians.....	3
MATH-120	Intermediate Algebra	5
MATH-121	Plane Trigonometry.....	3
MATH-191	Pre-Calculus	5
MATH-192	Analytic Geometry and Calculus I.....	5

total minimum units for the major 25

**Associate in science degree
mTECH - Industrial maintenance machinist/
mechanic**

Students completing the program will be able to...

- A. discuss the role of the industrial maintenance machinist/mechanic in shop and field maintenance safety.
- B. interpret blueprints and technical drawings for parts manufacturing and maintenance repair operations
- C. grind high speed steel tool bits for general purpose turning and threading.
- D. cut multiple lead and acme threads on a lathe.
- E. use the vertical milling machine to drill holes, index, bore hole to a specified diameter and depth, mill surfaces and edges, and use an indicator to reference work.
- F. replace a single mechanical seal in a centrifugal pump.
- G. align a pump shaft to a motor to a specified tolerance.

This program prepares students for jobs in the manufacturing industry including industrial machinery mechanics, maintenance specialists or technicians, and machinery maintenance workers in industries including chemical, refinery, and public works. These jobs involve repairing, installing, adjusting, or maintaining industrial production and processing machinery or refinery and pipeline distribution systems. The labor market for these high-wage occupations in the Bay Area is strong.

Engineering technology

Graduates of this program will gain skills and knowledge in areas that include machining, industrial hydraulics and pneumatics, shop and field maintenance, basic electricity, technical drawing, basic drafting, and applied mathematics. Students are advised to meet with a counselor or program advisor to develop an educational plan that meets their needs

The DVC mTECH major is not intended for transfer. Option 1 (DVC General Education) is advised for students who do not intend to transfer. Students who intend to transfer to a four-year baccalaureate program should consult with a counselor regarding specific major preparation requirements at the transfer institution of their choice. Students who intend to transfer are advised to select General Education Option 2 (IGETC) or Option 3 (CSU GE).

Students must complete each of the courses required for the major with a "C" grade or higher. Students may not take a pass/no pass option for major courses. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

<i>major requirements:</i>	<i>units</i>
CONST-110 Occupational Safety.....	2
ELECT-110 Survey of Electricity.....	2
ENGTC-119 Introduction to Technical Drawing.....	3
ENGTC-165 Machining and Manufacturing I.....	3
ENGTC-166 Machining and Manufacturing II.....	3
ENGTC-175 Hydraulic and Pneumatic Systems and Components.....	3
ENGTC-176 Mechanical Systems and Components.....	3
 <i>plus 0-5 units from:</i>	
ENGTC-111 Mathematics for Technicians.....	3
MATH-120 Intermediate Algebra.....	5
MATH-121 Plane Trigonometry.....	3
MATH-191 Pre-Calculus.....	5
MATH-192 Analytic Geometry and Calculus I.....	5
total minimum units for the major	19

Certificate of achievement Civil design drafting technology

Students completing the program will be able to...

- A. use technical drafting principles to develop technical drawings.
- B. interpret construction blueprints.
- C. use geometric construction and descriptive geometry to solve geometric problems.
- D. create 2-dimensional and 3-dimensional computer aided drawings (CAD).
- E. interpret global positioning data.
- F. measure land forms using ground surveying equipment.
- G. apply trigonometry to math problems.
- H. apply the basic laws of physics to everyday situations.

This certificate program prepares students for an entry level job as a civil drafter. Drafters work under the supervision of civil or structural engineers, architects, and/or surveyors as support staff in jobs requiring them to prepare, interpret, and revise technical drawings, or gather and categorize field data. Engineering technicians work as support staff in field, laboratory and/or office environments.

To earn a certificate of achievement, students must complete each of the required courses with a "C" grade or higher. Some courses are not offered every term so please consult with the program director for assistance in scheduling classes.

<i>required courses:</i>	<i>units</i>
CONST-114 Print Reading.....	3
ENGIN-121* Engineering Drawing /Descriptive Geometry.....	3
PHYS-110 Elementary Physics.....	3

<i>plus at least 3 units from:</i>	
ENGTC-111 Mathematics for Technicians.....	3
MATH-121 Plane Trigonometry.....	3
MATH-191 Pre-Calculus.....	5

<i>plus at least 3 units from:</i>	
ARCHI 119 Introduction to Technical Drawing.....	3
ENGTC-119 Introduction to Technical Drawing.....	3

<i>plus at least 3 units from:</i>	
ARCHI-126 Computer Aided Design and Drafting - AutoCAD.....	3
ENGTC-126 Computer Aided Design and Drafting - AutoCAD.....	3

<i>plus at least 3 units from:</i>	
ARCHI-226 Computer Aided Drafting Design, Advanced Concepts - AutoCAD.....	3
ENGTC-226 Computer Aided Drafting Design, Advanced Concepts - AutoCAD.....	3

<i>plus at least 3 units from:</i>	
GEOG 124 Thinking and Communicating Geospatially.....	3
GEOG-129 Field Data Acquisition and Management.....	3

<i>plus at least 6 units from:</i>	
CONST-116* Plane Surveying.....	4
ENGIN-140* Plane Surveying.....	4
ENGTC-123 Principles of Civil Drafting.....	3
GEOG-125 Introduction to Geographic Information Systems (GIS).....	3
GEOG-126 Advanced Geographic Information Systems ...	3
GEOG-160 Introduction to Remote Sensing.....	4
GEOG-162 Map Design and Visualization.....	3

total minimum required units 30

**Certain courses required for this certificate have recommended or prerequisite coursework that could add additional units.*

Certificate of achievement

Civil drafting, CAD

Students completing the program will be able to...

- A. apply civil drafting principles to interpret and develop civil engineering maps.
- B. interpret construction blueprints.
- C. create 2-dimensional and 3-dimensional computer aided drawings (CAD).
- D. interpret global positioning data.
- E. measure land forms using ground surveying equipment.
- F. use general computer software such as Microsoft Word and Excel.
- G. apply trigonometry to math problems.

This certificate program prepares students for further study or an entry-level training position in jobs requiring them to prepare and revise technical drawings used in civil engineering and surveying.

To earn a certificate of achievement, students must complete each of the required courses with a "C" grade or higher. Some courses are not offered every term so please consult with the program director for assistance in scheduling classes.

<i>required courses:</i>	<i>units</i>
CONST-114 Print Reading.....	3
ENGTC-111 Mathematics for Technicians.....	3
MATH-121* Plane Trigonometry.....	3

<i>plus at least 3 units from:</i>	
ARCHI-119 Introduction to Technical Drawing.....	3
ENGTC-119 Introduction to Technical Drawing.....	3

<i>plus at least 3 units from:</i>	
ARCHI-126 Computer Aided Design and Drafting - AutoCAD.....	3
ENGTC-126 Computer Aided Design and Drafting - AutoCAD.....	3

<i>plus at least 3 units from:</i>	
ARCHI-226 Computer Aided Drafting Design, Advanced Concepts - AutoCAD.....	3
ENGTC-226 Computer Aided Drafting Design, Advanced Concepts - AutoCAD.....	3

<i>plus at least 3 units from:</i>	
GEOG 124 Thinking and Communicating Geospatially.....	3
GEOG-129 Field Data Acquisition and Management	3

<i>plus at least 6 units from:</i>	
ARCHI-135 Digital Tools for Design	3
ARCHI-136 Digital Tools for Architecture	3
CONST-116* Plane Surveying.....	4
ENGIN-140* Plane Surveying.....	4
ENGTC-123 Principles of Civil Drafting.....	3
GEOG-125 Introduction to Geographic Information Systems (GIS).....	3
GEOG-126 Advanced Geographic Information Systems ...	3
GEOG-160 Introduction to Remote Sensing.....	3
GEOG-162 Map Design and Visualization.....	3

total minimum required units 27

**Certain courses required for this certificate have recommended or prerequisite coursework that could add additional units.*

Certificate of achievement
Machining for mechanical engineering technology

Students completing the program will be able to...

- A. read the drawing for an object and visualize the geometry.
- B. choose the correct manufacturing method for the object.
- C. manufacture an object from a given drawing using machine tools.
- D. use algebra, spreadsheets and measurement data to produce QC statistics.
- E. verify that products meet the design criteria.
- F. design and prototype mechanical parts under the supervision of engineers.
- G. use computer integrated manufacturing (CIM) and computer numerical control (CNC) software for automation of manufacturing.

The certificate of achievement in machining for mechanical engineering technology is offered to prepare students with the required aptitude and skills to enter the workforce as entry-level machinists, tool and die makers, or mold makers. Students will be prepared for careers that are highly in demand for aerospace, medical, electronic, high tech, and automotive and transport industries. Graduates of this program will be well equipped to continue their career advancement as engineers, product developers, prototype/model builders, production machinist, or electro-mechanical maintenance and repair specialists.

Students completing this program will develop familiarity with lathes, mills, drill presses, and precision measuring. They will also be introduced to the concepts of computer numerical control (CNC) machines and 3D (additive) manufacturing processes, geometric dimension and tolerance (GD&T), and modern technical drawing (CAD) techniques.

Students must complete each of the courses required for the certificate with a "C" grade or higher. Students may not take a pass/no pass option for required courses.

<i>required courses:</i>	<i>units</i>
ENGTC-119 Introduction to Technical Drawing.....	3
ENGTC-126 Computer Aided Design and Drafting- AutoCAD.....	3
ENGTC-129 Product Design I Using Solidworks.....	3
ENGTC-160 Introduction to Industrial and Manufacturing Engineering.....	3
ENGTC-162 Geometric Dimensioning and Tolerancing	1
ENGTC-165 Machining and Manufacturing I.....	3
ENGTC-166 Machining and Manufacturing II.....	3
ENGTC-168 Introduction to Computer Numerical Control..	3

<i>plus at least 3 units from:</i>	
ENGTC-111 Mathematics for Technicians.....	3
MATH-120 Intermediate Algebra.....	5
MATH-121 Plane Trigonometry	3
MATH-191 Pre-Calculus.....	5
MATH-192 Analytic Geometry and Calculus I	5

total minimum required units 25

**Certificate of achievement
mTECH - Industrial maintenance machinist/
mechanic**

Students completing the program will be able to...

- A. discuss the role of the industrial maintenance machinist/mechanic in shop and field maintenance safety.
- B. interpret blueprints and technical drawings for parts manufacturing and maintenance repair operations
- C. grind high speed steel tool bits for general purpose turning and threading.
- D. cut multiple lead and acme threads on a lathe.
- E. use the vertical milling machine to drill holes, index, bore hole to a specified diameter and depth, mill surfaces and edges, and use an indicator to reference work.
- F. replace a single mechanical seal in a centrifugal pump.
- G. align a pump shaft to a motor to a specified tolerance.

This program prepares students for jobs in the manufacturing industry including industrial machinery mechanics, maintenance specialists or technicians, and machinery maintenance workers in industries including chemical, refinery, and public works. These jobs involve repairing, installing, adjusting, or maintaining industrial production and processing machinery or refinery and pipeline distribution systems. The labor market for these high-wage occupations in the Bay Area is strong.

Graduates of this program will gain skills and knowledge in areas that include machining, industrial hydraulics and pneumatics, shop and field maintenance, basic electricity, technical drawing, basic drafting, and applied mathematics. Students are advised to meet with a counselor or program advisor to develop an educational plan that meets their needs.

Students must complete each course used to meet a program requirement with a "C" grade or higher. Students may not take a pass/no pass option for certificate courses.

<i>required courses:</i>		<i>units</i>
CONST-110	Occupational Safety	2
ELECT-110	Survey of Electricity	2
ENGTC-119	Introduction to Technical Drawing.....	3
ENGTC-165	Machining and Manufacturing I.....	3
ENGTC-166	Machining and Manufacturing II.....	3
ENGTC-175	Hydraulic and Pneumatic Systems and Components	3
ENGTC-176	Mechanical Systems and Components	3
 <i>plus 0-5 units from:</i>		
ENGTC-111	Mathematics for Technicians.....	3
MATH-120	Intermediate Algebra.....	5
MATH-121	Plane Trigonometry	3
MATH-191	Pre-Calculus.....	5
MATH-192	Analytic Geometry and Calculus I	5
total minimum required units		19

**Certificate of accomplishment
Computer aided drafting and digital media
for architecture, industrial design and
engineering**

Students completing the program will be able to...

- A. create 2-dimensional and 3-dimensional computer aided drawings (CAD).
- B. interpret construction blueprints and architectural plans.
- C. calculate data collected from land surveying).
- D. interpret simple technical drawings.
- E. construct 3-Dimensional models using parametric software.

Drafters make drawings and plans to specify dimensions, materials and processes used in the making of a final product. These drawings are guidelines for the workers who will actually build or make whatever is being produced. Drafters also make drawings from blueprints, engineering sketches, photos and other sources which show how parts and other objects work, their relation to one another, and how they will be put together. Drafters create drawings and plans to specify dimensions, materials and processes for the finished product. Such drawings and plans provide guidance to those working to complete the finished product. Drafters also render drawings from blueprints, sketches, photos and other sources which show the interplay of components and their relationships to one another, and to provide guidance for final assembly.

To earn a certificate of accomplishment, students must complete each of the required courses with a "C" grade or higher. Some courses are not offered every term. Consult with the program director for assistance in scheduling classes.

<i>required courses:</i>		<i>units</i>
<i>complete 3 units from:</i>		
ARCHI-126	Computer Aided Design and Drafting - AutoCAD	3
ENGTC-126	Computer Aided Design and Drafting - AutoCAD	3
 <i>plus at least 3 units from:</i>		
ARCHI-226	Computer Aided Drafting Design, Advanced Concepts - AutoCAD	3
ENGTC-226	Computer Aided Drafting Design, Advanced Concepts - AutoCAD	3
 <i>plus at least 3 units from:</i>		
ARCHI-119	Introduction to Technical Drawing.....	3
ARCHI-120	Introduction to Architecture and Environmental Design	3
CONST-114	Print Reading.....	3
ENGTC-119	Introduction to Technical Drawing.....	3
 <i>plus at least 3 units from:</i>		
ARCHI-135	Digital Tools for Design	3
ARCHI-136	Digital Tools for Architecture	3
ARTDM-160	3D Modeling and Animation I.....	3
ENGTC-129	Product Design I Using SolidWorks	3
GEOG-125	Introduction to Geographic Information Systems (GIS).....	3
IDSGN-120	Introduction to Industrial and Product Design	3
total minimum required units		12

**Certificate of accomplishment
Pre-engineering technology**

Students completing the program will be able to...

- A. develop technical drawings with detailed dimensions using hand drafting line work and lettering.
- B. create 2-dimensional computer aided design (CAD) drawings and 3-dimensional computer models.
- C. safely operate hand and power tools.
- D. use measuring devices to calculate and verify tolerances for metal, wood, and plastics parts.
- E. apply prototyping techniques for engineering, product design, and manufacturing.

The certificate of accomplishment in pre-engineering technology provides students with the foundation of skills required to pursue a degree or certificate in mTECH (industrial machine maintenance), manufacturing, industrial design, or electro-mechanical. The courses provide students with skills in technical drawing, computer aided design (CAD), and traditional shop tools.

Students create detailed product specifications and gain knowledge required to safely operate shop tools. Concepts in technical drawing, computer-aided design, and hand drafting will be inclusive. In addition, students use a variety of measuring devices and safely operate traditional machinery including drills, saws and mechanical tools. Completion of the foundation courses and prepare students to transition into technical design, rapid prototyping, computer numerical control (CNC) machining and manufacturing.

To earn a certificate of accomplishment, students must complete each course used to meet a certificate requirement with a "C" grade or higher and maintain an overall GPA of 2.5 or higher in the coursework required for the certificate.

<i>required courses:</i>	<i>units</i>
ENGTC-119 Introduction to Technical Drawing.....	3
ENGTC-126 Computer Aided Design and Drafting-AutoCAD	3
IDSGN-105 Assembly and Fabrication Workshop.....	2
total minimum required units	8

ENGTC-111 Mathematics for Technicians

- 3 units LR
- 54 hours lecture per term
 - Prerequisite: MATH-090 or MATH-090E or MATH-090SP or equivalent
 - Formerly ENGIN-111

This course is a study of mathematical topics used for technical applications in the workplace. Topics include an introduction to units of measurement, mathematical operations with application to technical problems, algebraic operations and concepts in geometry and trigonometry. An introduction to coordinate spaces and systems and their application to technical problems in the field are also covered. The calculation of surface areas and volumes are presented in context with problems encountered in technical and design fields. CSU

ENGTC-119 Introduction to Technical Drawing

- 3 units SC
- 36 hours lecture/72 hours laboratory per term
 - Note: Same as ARCHI-119. For students with no previous drafting experience. Credit by examination option available.
 - Formerly ENGIN-119

This course presents an introduction to technical drawing. Topics include technical lettering and line work, geometric constructions, sketching and shape description, orthographic projection, dimensioning, section views, and auxiliary views. Students will gain experience using computers to produce technical drawings, utilizing 3D modeling and orthographic computer aided design (CAD) drafting. An introduction to computer numerical control (CNC) prototyping and 3D printing is also covered. CSU, UC (credit limits may apply to UC - see counselor)

ENGTC-123 Principles of Civil Drafting

- 3 units LR
- 36 hours lecture/72 hours laboratory per term
 - Recommended: ENGTC-111 (may be taken concurrently), ENGTC-119 and ENGTC-126 or equivalents
 - Formerly ENGIN-123

Introduction to civil drafting as it relates to topographic maps and charts. Course covers reading, interpreting and constructing a variety of maps used for civil engineering such as surveyor maps, plat and plot maps, and aerial maps. Students will use both manual and computer methods for drafting of maps. CSU

ENGTC-126 Computer Aided Design and Drafting - AutoCAD

- 3 units SC
- 36 hours lecture/72 hours laboratory per term
 - Recommended: ENGTC-119 or ARCHI-119 or equivalent
 - Note: Same as ARCHI-126. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree. Credit by examination option available.
 - Formerly ENGIN-126

This introductory course covers the fundamentals of AutoCAD, and its application to the creation of technical drawings. Hands-on training utilizing a comprehensive overview of the software package and its applications to technical drafting is emphasized. CSU, UC (credit limits may apply to UC - see counselor)

ENGTC-129 Product Design I Using SolidWorks

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ARCHI-119 or ENGTC-119 or equivalent
- Note: Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree. Credit by examination option available.
- Formerly ENGIN-129

This course will introduce students to product design using SolidWorks. Students will learn the functions of SolidWorks and how to apply these functions within the product design process. CSU

ENGTC-160 Introduction to Industrial and Manufacturing Engineering

3 units LR

- 54 hours lecture per term
- Formerly ENGIN-160

This course presents the methods and processes involved in the manufacturing of a variety of products in various materials. Topics include an introduction to various materials and their properties, types of machinery used in manufacturing, methods of casting and shaping materials along with other industrial and technical processes. An introductory overview of engineering drawing standards and quality assurance is also covered. CSU, UC

ENGTC-162 Geometric Dimensioning and Tolerancing

1 unit LR

- 9 hours lecture/27 hours laboratory per term
- Recommended: ENGTC-111 or equivalent
- Formerly ENGIN-162

This course will present the principles of geometric dimensioning and tolerancing (GDT). Topics include GDT symbols, datum planes, material conditions, orientation, location, profile and runout tolerances. Laboratory assignments emphasize measurement using granite tables and pin and height gauges. CSU, UC

ENGTC-165 Machining and Manufacturing I

3 units LR

- 36 hours lecture/72 hours laboratory per term
- Recommended: ENGTC-119 or ARCHI-119 or equivalent
- Formerly ENGIN-165

This course introduces practical and theoretical aspects of machine tool processes. Topics include basic blueprint interpretation, use of hand tools, measuring instruments and gauges, layout, inspection techniques and metals identification. Setup and operation of drill presses, band saw, grinders, lathes, milling machines and related tools will also be covered. CSU

ENGTC-166 Machining and Manufacturing II

3 units LR

- 36 hours lecture/72 hours laboratory per term
- Prerequisite: ENGTC-165 or equivalent
- Formerly ENGIN-166

This course introduces practical and theoretical aspects of advanced machine tool processes, focusing on lathe and vertical milling machine operations. Topics include precision measuring and inspection practices, surface grinding, special work holding devices, and mechanical hardware. An introduction to Geometric Dimensioning and Tolerancing (GDT) and properties of materials associated with machinability, heat treating and hardness testing is provided. CSU

ENGTC-168 Introduction to Computer Numerical Control

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ENGIN-120 or equivalent
- Formerly ENGIN-168, ENGIN-172

This course introduces students to Computer Numerical Control (CNC) machining. Students will learn the techniques of developing and programming cutting tool paths and movements using three-dimensional CAD models and working drawings. Instruction will cover the use of Computer Integrated Manufacturing package (CIM) software and visualization of cutting operations. Topics will also include setup and operation of CNC equipment for manufacturing. CSU

ENGTC-175 Hydraulic and Pneumatic Systems and Components

3 units SC

- 18 hours lecture/108 hours laboratory per term
- Formerly ENGIN-175

This course covers the practical and theoretical aspects of hydraulic and pneumatic systems. Topics include concepts, theory and common systems, components and devices. The laboratory emphasizes hands-on exercises in operation, maintenance and mechanical skills. CSU

ENGTC-176 Mechanical Systems and Components

3 units SC

- 18 hours lecture/108 hours laboratory per term
- Formerly ENGIN-176

This course covers mechanical systems with an emphasis on mechanical drives, flexible belt drives, lubrication, bearings, vibration, and rotating equipment. Topics include operation, maintenance and repair of mechanical systems and components used in a variety of industrial occupations. CSU

ENGTC-226 Computer Aided Drafting Design, Advanced Concepts - AutoCAD

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Recommended: ENGTC-126 or ARCH1-126 or equivalent
- Note: Same as ARCH1-226. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.
- Formerly ENGIN-226

This course covers the concepts and applications of constructing digital three-dimensional (3D) models and photo-realistic renderings for presentation using AutoCAD, 3D Studio Max and Alias. Advanced techniques for surface, wireframe and solid modeling will be presented. Students will explore lighting, materials mapping and rendering as they apply to architecture, engineering and industrial design. CSU, UC (credit limits may apply to UC - see counselor)

ENGLISH – ENGL

Obed Vazquez, Dean
English Division
Faculty Office Building, Room 136

Possible career opportunities

Career options that are available through the study of English include: advertising copy writer, columnist, editor, information specialist, interpreter, lawyer, lexicographer, legislative assistant, publisher, researcher, teacher, technical writer, and writing consultant. Some career options may require more than two years of college study.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in arts degree English

Students completing the program will be able to...

- demonstrate knowledge of and familiarity with the methods of interpreting literature across genres.
- assess, evaluate, and analyze ideas expressed in text or in spoken language.
- create (write or present) coherent arguments that evidence clear prose and synthesize diverse bodies of knowledge.
- conceptualize, write, workshop, present for feedback, revise and edit an original text.

The English major at Diablo Valley College (DVC) offers students the opportunity to prepare for a broad range of professions through the study of language, literature, and composition, as well as the opportunity to transfer to UC, CSU, and other four-year colleges and universities to earn a bachelor's degree. The English major curriculum at DVC hones a student's critical thinking, reasoning, and communication skills as it also prepares students pursuing careers in law, government, business, entertainment (film, television, and theater), advertising, writing, editing, and education.

DVC's English major consists of 21 units of study. Students are required to take 6 units of core reading and composition courses, where they will develop their ability to craft clear prose through writing, reading, and research. In addition, students are required to complete 9 units of core genre and survey courses, and 6 units of specialized literature and writing courses, thereby developing individual interests and breadth of knowledge.

The DVC English major is intended for transfer. Students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to four-year institutions of their choice are met. Students who intend to transfer are advised to select General Education Option 2 (IGETC) or Option 3 (CSU GE). Option 1 (DVC General Education) is not generally advised.

To earn an associate in arts degree with a major in English, students must complete each course used to meet a major requirement with a "C" grade or higher, maintain an overall GPA of 2.5 or higher in the coursework required for the major and complete general education requirements as listed in the catalog. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

major requirements: *units*

Group 1: Core reading and composition courses

complete at least 6 units from:

ENGL-122*	First-Year College Composition and Reading	3
ENGL-123*	Critical Thinking: Composition and Literature	3
ENGL-126*	Critical Thinking: The Shaping of Meaning in Language.....	3

Group 2: Core genre

complete at least 3 units from:

ENGL-150	Introduction to Literature	3
ENGL-151	The Short Story	3
ENGL-153	Contemporary Poetry	3
ENGL-180**	Drama and Performance as Literature	3

Group 3: Core survey

complete at least 6 units from:

ENGL-154	Shakespeare and His World	3
ENGL-252*	Survey of Early English Literature	3
ENGL-253*	Survey of Late English Literature	3
ENGL-262*	Survey of Early American Literature	3
ENGL-263*	Survey of Late American Literature	3
ENGL-272*	Survey of Early World Literature	3
ENGL-273*	Survey of Late World Literature	3

English

Group 4: electives - Specialized literature and writing

complete at least 6 units from:

ENGL-152	Film as Literature.....	3
ENGL-162	Language, Literature and Culture.....	3
ENGL-163	Asian American Literature.....	3
ENGL-164	Native American Literatures.....	3
ENGL-166	African American Literature.....	3
ENGL-167	Latin American Literature.....	3
ENGL-168	The Literatures of America.....	3
ENGL-170	World Mythology.....	3
ENGL-172	The Bible as Literature.....	3
ENGL-173	Queer Literature Across Cultures.....	3
ENGL-175	Science Fiction and Fantasy Literature.....	3
ENGL-176	The Graphic Novel as Literature.....	3
ENGL-177	Children's Literature.....	3
ENGL-178	Young Adult Literature.....	3
ENGL-190	Multicultural Literature by American Women ...	3
ENGL-222*	Creative Writing.....	3
ENGL-223*	Short Story Writing.....	3
ENGL-224*	Poetry Writing.....	3
ENGL-225*	Creative Nonfiction Writing.....	3

total minimum units for the major 21

*The above courses have specific prerequisites. See course description for details.

**Students taking English 180 may need to take one more course from the above list as Drama and Performance as Literature does not articulate with some university English programs. If so, 3 units earned from English 180 will apply to Group 4: Electives.

Associate in arts in English for transfer

Students completing the program will be able to...

- demonstrate knowledge of and familiarity with the methods of interpreting literature across genres.
- assess, evaluate, and analyze ideas expressed in text or in spoken language.
- create (write or present) coherent arguments that evidence clear prose and synthesize diverse bodies of knowledge.
- conceptualize, write, workshop, present for feedback, revise and edit an original text.

The English major at Diablo Valley College (DVC) offers students the opportunity to prepare for a broad range of professions through the study of language, literature, and composition, as well as the opportunity to transfer to UC, CSU, and other four year colleges and universities to earn a bachelor's degree. The English major curriculum at DVC hones a student's critical thinking, reasoning, and communication skills as it also prepares students pursuing careers in law, government, business, entertainment (film, television, and theater), advertising, writing, editing, and education.

The associate in arts in English for transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education pattern (CSU GE); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Some courses in the major satisfy both major and CSU GE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

major requirements:	units
ENGL-123 Critical Thinking: Composition and Literature.....	3
ENGL-126 Critical Thinking: The Shaping of Meaning in Language.....	3

plus at least 6 units from:

ENGL-252	Survey of Early English Literature.....	3
ENGL-253	Survey of Late English Literature.....	3
ENGL-262	Survey of Early American Literature.....	3
ENGL-263	Survey of Late American Literature.....	3
ENGL-272	Survey of Early World Literature.....	3
ENGL-273	Survey of Late World Literature.....	3

plus at least 3 units from:

any course not used above, or:

ENGL-124	The Nature of Language: An Introduction to Linguistics.....	3
ENGL-150	Introduction to Literature.....	3
ENGL-151	The Short Story.....	3
ENGL-154	Shakespeare and His World.....	3
ENGL-162	Language, Literature and Culture.....	3
ENGL-163	Asian American Literature.....	3
ENGL-164	Native American Literatures.....	3
ENGL-166	African American Literature.....	3
ENGL-167	Latin American Literature.....	3
ENGL-168	The Literatures of America.....	3
ENGL-170	World Mythology.....	3
ENGL-172	The Bible as Literature.....	3
ENGL-173	Queer Literature Across Cultures.....	3
ENGL-175	Science Fiction and Fantasy Literature.....	3
ENGL-177	Children's Literature.....	3
ENGL-178	Young Adult Literature.....	3
ENGL-222	Creative Writing.....	3
ENGL-223	Short Story Writing.....	3
ENGL-224	Poetry Writing.....	3
ENGL-225	Creative Nonfiction Writing.....	3

plus at least 3 units from:

any course not used in either group above, or:

ENGL-140	Tutor Training.....	3
ENGL-152	Film as Literature.....	3
ENGL-153	Contemporary Poetry	3
ENGL-176	The Graphic Novel as Literature	3
ENGL-180	Drama and Performance as Literature	3
ENGL-190	Multicultural Literature by American Women	3
JRNAL-120	Introduction to Newswriting and Reporting	3

total minimum units for the major 18

ENGL-090 Bridge to College Writing

2.5 units SC

- Non degree applicable
- 45 hours lecture per term
- Note: This course is not part of the developmental English sequence at Diablo Valley College.

This course provides instruction in grammar, syntax, usage, punctuation and the reading and writing processes at an introductory level.

ENGL-095 Studies in Reading and Writing

.5-5 units SC

- Non degree applicable
- Variable hours
- Recommended: ENGL-096 and ENGL-098 or equivalent recommendation from the assessment process

A supplemental course in reading and writing to provide a study of current concepts and problems in reading, writing, and related substantive areas. Specific topics will be announced in the schedule of classes.

ENGL-096 Introduction to College Reading and Study Skills

3 units SC

- Non degree applicable
- 54 hours lecture/18 hours laboratory per term
- Note: ESL students are strongly encouraged to follow the ESL assessment process. ESL-096A is recommended for ESL students

This course introduces students to academic culture and the common practices of academic reading, including reading strategies, annotation, summary, quoting, and response. Students will practice identifying themes and relationships between key ideas and distinguishing between main points and supporting details. A primary aim is to increase students' reading fluency and to develop their ability to comprehend, interpret, and write about what they read. Students will also build their vocabularies and become familiar with study skills and campus resources that foster academic success.

ENGL-097 Introduction to College Reading and Writing

5 units SC

- Non degree applicable
- 90 hours lecture per term

This course provides an integrated approach to reading and writing, preparing students for college-level work and transfer-level English. Students will be introduced to academic culture and to the practices associated with both academic reading and writing. The course presents a variety of methods for interacting with, comprehending, and responding to texts, which serve as a foundation for the course. The course also emphasizes critical thinking, the development of writing skills, and the writing process. Vocabulary development, study skills and campus resources are also covered.

ENGL-098 Introduction to College Writing

3 units SC

- Non degree applicable
- 54 hours lecture/18 hours laboratory per term
- Note: ESL students are strongly encouraged to follow the ESL assessment process. ESL-098A is recommended for ESL students.

This course introduces students to academic culture and the common practices of academic writing, including the writing process, essay structure, organization, and idea and paragraph development. Students will compose thesis-driven, coherent essays for an academic audience. A variety of college-level texts serve as the foundation for class discussion and student writing. Students will also study grammar in the context of their own writing.

ENGL-099 English Grammar and Usage

3 units SC

- Non degree applicable
- 54 hours lecture per term

This course provides intensive instruction on the rules of grammar, punctuation, spelling and their application in writing. Students will learn to recognize grammatical errors in their writing, to make informed judgments about the style and syntax of the sentences they write, to reduce the number of misspelled words, and to use a broader vocabulary in their writing. The course is intended to prepare students for more advanced English classes and to increase their knowledge of the fundamentals of English.

ENGL-116 College Reading Development

3 units SC

- 54 hours lecture per term
- Recommended: ENGL-096 or reading/writing assessment process or equivalent
- Note: Only one of ENGL-116, 117, 118 or ESL-117A may be applied to the units required for the associate degree.

This course presents strategies for reading college-level materials. Students will practice methods of interacting with what they read in order to increase appreciation and comprehension. Topics include text analysis, flexible approaches to reading, vocabulary development, and study skills.

ENGL-117 Integrated College Reading and Writing Development

5 units SC

- 90 hours lecture per term
- Recommended: ENGL-096 and ENGL-098 or equivalent
- Note: This course is equivalent to the completion of ENGL-116 and ENGL-118 or ESL-117A. Only one of ENGL-116, 117, 118 or ESL-117A may be applied to the units required for the associate degree.

This course provides an integrated approach to reading and writing for those students who have been assessed into ENGL-117 or both ENGL-116 and 118. It provides the necessary preparation for ENGL-122, transfer-level English. Students will prepare for college-level work; practice critical reading, writing, and thinking skills; and improve their vocabulary and study skills. Students will actively engage with their peers, read and interact with a variety of texts, and complete both formal and informal writing assignments connected to these readings. The central focus throughout the course will be on the ways reading and writing inform each other.

ENGL-118 College Writing Development

3 units SC

- 54 hours lecture per term
- Recommended: ENGL-098 or reading/writing assessment process or equivalent
- Note: Only one of ENGL-116, 117, 118 or ESL-117A may be applied to the units required for the associate degree.

This course is designed to help students express their ideas in college-level expository essays. Through continual practice of the writing process, students will improve their fluency and ease developing ideas for composing, organizing, and revising essays. In addition, students will analyze a variety of texts, using them as a stimulus for class discussion and as models for their own writing. This course also covers grammar in the context of students' own writing.

ENGL-120 First-Year College Composition and Reading Support

2 units SC

- Non degree applicable
- 36 hours lecture per term
- Corequisite: ENGL-122 or equivalent

English 120 is a support course for students who place into English 122 with the requirement or recommendation of additional support. The course offers students opportunities to practice the college-level reading, writing, research, and critical-thinking skills introduced in English 122. Additionally, the course will emphasize study skills, reflection, and other practices that promote success in both English 122 and other college classes.

ENGL-120A First-Year College English Support for Multilingual Students

2 units SC

- Non degree applicable
- 36 hours lecture per term
- Corequisite: ENGL-122A or equivalent

This course is designed to increase students' awareness of both American academic norms and the campus resources that foster student success. The course also gives students practice observing their own and others' writing, strengthening their linguistic monitors, and using editing strategies to develop accurate, meaningful, and appropriate usage of linguistic forms in written expression. Reading strategies and grammar concepts specific to the needs of advanced multilingual students will also be addressed.

ENGL-122 First-Year College Composition and Reading

3 units LR

- 54 hours lecture per term
- Prerequisite: Placement into ENGL-122; or ENGL-117; or ENGL-117A; or ENGL-116 AND ENGL-118; or ENGL-120 (may be taken concurrently with ENGL-122); or assessment process. Or equivalent.

This course focuses on the reading and writing process, including strategies for analyzing college-level readings and composing college-level essays that are coherent, developed, free of serious error, as well as employ various rhetorical strategies and integrate outside sources. C-ID ENGL 100, CSU, UC

ENGL-122A First-Year College English for Multilingual Students

3 units LR

- 54 hours lecture per term
- Prerequisite: Placement into ENGL-122A; or placement into ENGL-122A with ENGL-120A co-requisite; or ENGL-117; or ESL-117A; or ENGL-116 and 118; or assessment process. Or equivalent.

This course engages multilingual students regularly in the writing and reading process with a substantial amount of college-level reading. Multilingual students will apply disciplined thought to language in order to comprehend and analyze college-level readings and to compose college-level essays that are coherent, detailed, and free of serious error. In their essays, multilingual students will use a variety of types of support including primary and secondary research. Multilingual students will employ varied rhetorical strategies used by accomplished writers. CSU, UC

ENGL-123 Critical Thinking: Composition and Literature

3 units LR

- 54 hours lecture per term
- Prerequisite: ENGL-122 or equivalent

This course in advanced composition focuses on the analysis of literary texts, the development of logical reasoning and the improvement of argumentative writing skills. It is designed to develop critical thinking, reading, and writing skills beyond the level expected in ENGL-122 through the study of various critical approaches and diverse literary genres. CID ENGL 120, CSU, UC

ENGL-124 The Nature of Language: An Introduction to Linguistics

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course introduces students to the study of formal, psychological and socio/cultural properties of language. Students will learn the analysis, description, and functions of language in relation to culture, society, and personality. CSU, UC

ENGL-126 Critical Thinking: The Shaping of Meaning in Language

3 units LR

- 54 hours lecture per term
- Prerequisite: ENGL-122 or equivalent

This course focuses on the development of logical reasoning, analysis of expository and persuasive texts, and analytical and argumentative writing skills. It is designed to develop critical thinking, reading, and writing skills beyond the level expected in ENGL-122 through the analysis, evaluation and synthesis of arguments in diverse expository texts. C-ID ENGL 105, CSU, UC

ENGL-140 Tutor Training

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course introduces students to the basic principles and methods of tutoring, including but not limited to the tutoring sequence, the Socratic method of questioning, communication skills, and learning theory. Students will receive instruction on how to work with tutees who have difficulties comprehending reading, developing writing and utilizing study skills with the intent of making those tutees independent learners. CSU

ENGL-150 Introduction to Literature

3 units SC

- 54 hours lecture per term
- Recommended: ENGL-122 or equivalent

This course introduces students to the academic study of literature through representative works within the major genres reflecting a variety of cultures and experiences. The course covers the distinguishing elements of each literary form and the art and practice of literary analysis, and exposes students to the historical, philosophical, social, political, and/or aesthetic contexts relevant to selected texts. CSU, UC

ENGL-151 The Short Story

3 units SC

- 54 hours lecture per term
- Recommended: ENGL-122 or equivalent

This course introduces the study of the short story through representative works reflecting a variety of cultures and experiences. This course covers the distinguishing elements of the short story and the art and practice of literary analysis, and the historical, philosophical, social, political, and/or aesthetic contexts relevant to selected texts. CSU, UC

ENGL-152 Film as Literature

3 units SC

- 54 hours lecture per term
- Recommended: ENGL-122 or equivalent

This survey course covers the history, nature, and structure of the short narrative, documentary, and experimental film. The course compares and contrasts literature to film, noting how each medium deals with theme and structure. Many films from the DVC collection, including some showing the lives and stories of members of American subcultures and cultures around the world, along with new releases from major short-films distributors, will be viewed, discussed and written about. CSU, UC (credit limits may apply to UC - see counselor)

ENGL-153 Contemporary Poetry

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course explores contemporary poetry from a variety of cultural and poetic traditions. Through reading, analysis, and discussion, the course connects contemporary poetry to its historical, social, cultural, and aesthetic contexts while exploring the use of poetic forms and techniques. CSU, UC

ENGL-154 Shakespeare and His World

3 units SC

- 54 hours lecture per term
- Recommended: ENGL-122 or equivalent

This course will focus on the language, structure, characterization, and philosophy of a representative selection of Shakespeare's plays and sonnets within the framework of the historical, social, and artistic forces of the Elizabethan and Jacobean ages. The course will also examine Shakespeare's work not only as literature, but also as performance art in various media. Students will also practice the skills needed for analyzing and writing about literature. CSU, UC

ENGL-155 Topics in English

.5-3 units SC

- Variable hours

A supplemental course in English to provide a study of current concepts and problems in English and related substantive areas. Specific topics will be announced in the schedule of classes. CSU

ENGL-162 Language, Literature and Culture

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-116/118 or equivalent

This course examines language, literature and other aspects of culture using texts that reflect a broad variety of cultural perspectives. These texts will serve as a springboard to discuss and analyze cultural traditions and trends and their dynamic nature, which shift in response to various factors such as time or geography. The course will also explore the challenges of cross-cultural communication and introduce students to the techniques used to analyze literature of any culture or genre. CSU, UC

ENGL-163 Asian American Literature

3 units SC

- 54 hours lecture per term
- Recommended: ENGL-122 or equivalent

This course presents a variety of literary works from Asian American culture, which are significant in illuminating Asian American cultural experiences. Readings are chosen for their literary, historical, cultural, philosophical, and psychological importance. Distinguishing elements of literary forms and methods to analyze literature of any genre will also be covered. CSU, UC

ENGL-164 Native American Literatures

3 units SC

- 54 hours lecture per term
- Recommended: ENGL-122 or equivalent

This course presents the literary traditions and cultures of various Native American nations through the study of oral and written literary works (such as songs, myths, folktales, oratories, autobiographies, films, plays, poetry and prose). Through reading, analysis and discussion, the course will connect Native American literatures to historical, social, cultural, and aesthetic contexts and examine issues central to Native peoples, such as cultural identity, language, and self-determination. CSU, UC

ENGL-166 African American Literature

3 units SC

- 54 hours lecture per term
- Recommended: ENGL-122 or equivalent

This course is a study of the major works of fiction and poetry by African-American writers. Students will gain an awareness of main themes, concepts, and characteristics of this literature and its historical roots. Students will also explore African-American literature's role in rhetoric, religion, philosophy, history, music, or other arts or literature. CSU, UC

ENGL-167 Latin American Literature

3 units SC

- 54 hours lecture per term
- Recommended: ENGL-122 or equivalent

The course focuses on the literature of Latin American cultures. Through analysis of poetry, fiction, drama, music and film, students will explore political, social, historical, and psychological elements that comprise the voices of Latin Americans. CSU, UC

ENGL-168 The Literatures of America

3 units SC

- 54 hours lecture per term
- Recommended: ENGL-122 or equivalent

This course examines literary works of American authors from underrepresented groups: African American, Asian American, Mexican American, and Native American. We will read selected contributions from novels, plays, short stories, nonfiction and poetry to understand the influences that shape the literatures of America. CSU, UC

ENGL-170 World Mythology

3 units SC

- 54 hours lecture per term
- Recommended: ENGL-122 or equivalent

This course explores myth as a vital part of human experience, individual and collective, past and present. Myths from a wide range of cultures (including Native American, African, Asian, Middle Eastern and European) are examined. Myths in folklore, ritual, literature and the arts are compared with regard to their thematic content and the beliefs and values they reflect. CSU, UC

ENGL-172 The Bible As Literature

3 units SC

- 54 hours lecture per term
- Recommended: ENGL-122 or equivalent

This course presents the Hebrew Scriptures (Old Testament) and the New Testament as literature, including the historical, intellectual, and spiritual environments in which the texts were composed. Major themes and characters are given close attention, as is the development of the Biblical canon. Literary genres such as poetry, essays, letters, and epics in scripture are compared with those genres found in other world literatures. Distinguishing elements of literary forms and methods to analyze literature of any genre will also be covered. CSU, UC

ENGL-173 Queer Literature Across Cultures

3 units SC

- 54 hours lecture per term
- Recommended: ENGL-122 or equivalent

This course is a survey of queer literature. Literary genres covered include fiction, poetry, drama, and memoir. The wide-range of Lesbian Gay, Bisexual, Transgender, Queer (LGBTQ) experience is examined from various cultural points of reference, and students will read selections from a variety of cultures. This cross-cultural selection may include works by Native-American, Middle-Eastern, African, South-American, Asian, European, and American identified LGBTQ authors (including Latino/a, Asian-American, and African-American, and more). Additionally, students will analyze the ways historical, social, economic, and psychological forces shape LGBTQ cultures and the literatures they produce. The distinguishing elements of different literary genres and methods used to analyze literature of any genre will also be covered. CSU, UC

ENGL-175 Science Fiction and Fantasy Literature

3 units SC

- 54 hours lecture per term
- Recommended: ENGL-122 or equivalent

This course will offer reading, critical study, and discussion of speculative fiction (a broad term encompassing both science fiction and fantasy) as a literary form with consideration of major authors, themes, developments in the genre over time, critical approaches to the genre, and a variety of texts from diverse cultures. Because of the genre's unique characteristics, its significant works so often explore the political, psychological, and/or socio-economic factors at work in society. Formal analysis will identify key archetypal themes and characters; these may include but are not limited to the alien within and without, artificial intelligence and the nature of human experience, utopias and dystopias in imagination, the heroic journey, and speculative fiction as a modern mythology. The distinguishing elements of different literary genres and methods used to analyze literature of any genre will also be covered. CSU, UC

ENGL-176 The Graphic Novel as Literature

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents the graphic novel as a unique branch of literature. The course focuses on the graphic novel as a literary and artistic medium capable of exploring any topic in a sophisticated and compelling manner. Exploring a range of genres in fiction (superhero, coming of age, experimental) and non-fiction (memoir and reportage), course content will also cover literary and artistic techniques used in composing graphic literature, the historical and international origins of the form, and its current significance in contemporary literature and culture. CSU, UC

ENGL-177 Children's Literature

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course examines texts written for children as literature, applying sophisticated methods of literary criticism. The course places children's literature in an historical context, tracing its development from earliest oral origins to the present, and considers the contributions and points of view of various populations including African American, Native American, European American, Asian American, and Hispanic. The course material includes literature from various cultures and from various time periods. CSU, UC

ENGL-178 Young Adult Literature

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents an overview of young adult literature, designed to engage adult readers in a critical appraisal of the genre, its unique features and history, literary merit, and cultural influence. Topics include history of young adult literature, a study of its classic texts, works of diverse ethnic and under-represented groups, and the relationship of adolescent psychology to this genre. CSU, UC

ENGL-180 Drama and Performance as Literature

3 units SC

- 54 hours lecture per term
- Recommended: ENGL-122 or equivalent
- Note: Attendance at one or more live performances is required.

This course presents reading, critical study, and discussion of dramatic literature as a literary form by authors from diverse time periods and cultures. Dramatic structure, elements of performance (dramatic expression, stage direction, rhythm, etc.), and literary devices that characterize this literary genre are emphasized. Students will analyze the ways dramatic literature reflects and captures historical, social, cultural, and economic forces, and can serve as a unique literary artifact. The recognition of the distinguishing elements of literary forms and to development competency in analyzing literature of any genre are presented. CSU, UC

ENGL-190 Multicultural Literature by American Women

3 units SC

- 54 hours lecture per term
- Recommended: ENGL-122 or equivalent

This course presents literature by and about women from at least three of the following cultural, ethnic, or racial groups: African American, Native American, European American, Asian American, and Hispanic. Under scrutiny will be women's prescribed role in society as well as the language, ideology, substance, and form of the literature by them. Literature considered can include poetry, short stories, novels, graphic novels, plays, and memoirs. CSU, UC

ENGL-222 Creative Writing

3 units SC

- 54 hours lecture per term
- Prerequisite: Eligibility for ENGL-122 or equivalent

In this course, students read in different genres--primarily fiction and poetry in order to learn various writing techniques, styles, and conventions. This study leads to the composition of original poems and short prose pieces that students workshop in class, focusing on the revision and editing process. C-ID ENGL 200, CSU, UC

ENGL-223 Short Story Writing

3 units SC

- 54 hours lecture per term

This course provides an in-depth study of the elements of the short story. The elements of the short story form will be examined through reading and writing; students will write to prompts and complete original full-length short stories. Students' short stories will be critiqued by both the full class and the instructor in both one-on-one and workshop settings. CSU, UC

ENGL-224 Poetry Writing

3 units SC

- 54 hours lecture per term

This course is an in-depth study of the elements of poetry. Students write original poems for discussion and criticism by both class and instructor. CSU, UC

ENGL-225 Creative Nonfiction Writing

3 units SC

- 54 hours lecture per term
- Prerequisite: Eligibility for ENGL-122 or equivalent

In this course, students analyze classic and contemporary narrative nonfiction writing, including memoir, travel, nature and personal essays, to identify the aspects and strategies of successful creative nonfiction essays. The readings represent the diverse perspectives of African-American, Native American, European-American, Asian-American, and Hispanic writers. Students then employ the identified literary techniques to plan and compose creative nonfiction essays with an emphasis on the strategies necessary to develop an authentic narrative voice. Students present their writing to the class and instructor for discussion, review, and revision suggestions. CSU, UC

ENGL-252 Survey of Early English Literature

3 units SC

- 54 hours lecture per term
- Prerequisite: ENGL-122 or equivalent

This course presents Early English Literature from the time period of roughly 750-1790, a thousand years of poetry and prose that reflects the diverse history of the English-speaking peoples who populated the British Isles (England, Ireland, Scotland and Wales). The course examines the evolution of style and language in selected texts and the influence of cultural heritage on ideas, institutions, literature and other art forms. The course also exposes students to distinguishing elements of selected literary forms and to the art and practice of analyzing and writing about literature. C-ID ENGL 160, CSU, UC

ENGL-253 Survey of Late English Literature

3 units SC

- 54 hours lecture per term
- Prerequisite: ENGL-122 or equivalent

This course provides a survey of late English literature (nineteenth and twentieth centuries) through representative works such as poems, fiction, drama and non-fiction from major movements of this period. The course focuses on the development of literary forms and the relation between texts and broader historical, political, aesthetic and cultural themes and conditions. The course also exposes students to distinguishing elements or selected literary forms and to the art and practice of analyzing and writing about literature. C-ID ENGL 165, CSU, UC

ENGL-262 Survey of Early American Literature

3 units SC

- 54 hours lecture per term
- Prerequisite: ENGL-122 or equivalent

This course provides a survey of early American literature from before first contact through the Civil War, a body of work comprising diverse cultures, traditions, and genres. The course focuses on the development of literary forms and the relation between texts and the broader historical, political, aesthetic and cultural themes and conditions. The course also exposes students to distinguishing elements of selected literary forms and to the art and practice of analyzing and writing about literature. C-ID ENGL 130, CSU, UC

ENGL-263 Survey of Late American Literature

3 units SC

- 54 hours lecture per term
- Prerequisite: ENGL-122 or equivalent

This course provides a survey of late American literature from the Civil War through the present day, a body of work comprising diverse traditions, genres, and cultures. The course focuses on the development of late American literary forms and the relation between texts and broader historical, political, aesthetic and cultural themes and conditions. The course also exposes students to distinguishing elements of selected literary forms and to the art and practice of analyzing and writing about literature. C-ID ENGL 135, CSU, UC

ENGL-272 Survey of Early World Literature

- 3 units SC
 • 54 hours lecture per term
 • Prerequisite: ENGL-122 or equivalent

This course provides a survey of early world literature from antiquity to mid-late seventeenth century from cultures around the world, including significant literary movements of the timeframe: ancient times, the middle ages, and both the English and Italian Renaissance. The course focuses on the development of early world literary forms and the relation between texts and broader historical, political, aesthetic and cultural themes and conditions. The course also exposes students to distinguishing elements of selected literary forms and to the art and practice of analyzing and writing about literature. C-ID ENGL 140, CSU, UC

ENGL-273 Survey of Late World Literature

- 3 units SC
 • 54 hours lecture per term
 • Prerequisite: ENGL-122 or equivalent

This course provides a survey of late world literature from the seventeenth century to modern times from cultures around the world, including significant literary movements of this timeframe: romanticism, realism, modernism, post-colonial, and contemporary literature. The course focuses on the development of late world literary forms and the relation between texts and broader historical, political, aesthetic and cultural themes and conditions. The course also exposes students to distinguishing elements of selected literary forms and to the art and practice of analyzing and writing about literature. C-ID ENGL 145, CSU, UC

ENGL-298 Independent Study

- .5-3 units SC
 • Variable hours
 • Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

ENGLISH AS A SECOND LANGUAGE – ESL

Obed Vazquez, Dean
 English Division
 Faculty Office Building, Room 136

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

The English as a Second Language (ESL) program offers a broad range of courses in reading, writing, grammar, and oral skills communication that are organized into increasing levels of skill development. The low-intermediate level consists of a single course that combines reading, writing, and speaking skills development. The intermediate, high-intermediate, and advanced levels consist of separate courses in reading, writing, grammar, and oral skills. For students at the high-advanced ESL level, an integrated reading and writing course, English 117A, is offered. Completion of English 117A provides English language learners with an entry point to college-level coursework.

Students may begin at any ESL level and complete courses individually or in sequence. The courses are organized into certificates of accomplishment in ESL:

- ESL conversation
- Intermediate ESL reading and writing
- Advanced ESL reading and writing
- Transition to college level English

To earn a certificate, students must complete each of the required courses with a grade of “C” grade or higher.

**Certificate of accomplishment
 ESL conversation**

Students completing the program will be able to...

- A. demonstrate confidence and skills in English pronunciation.
- B. demonstrate confidence and skills in listening to and understanding English.
- C. demonstrate skills in English conversation, including a mock job interview.

<i>required courses:</i>		<i>units</i>
ESL-075	Intermediate Oral Communication Skills	2
ESL-085	High-Intermediate Oral Communication Skills	2
ESL-095	Advanced Oral Communication Skills	2

total minimum required units 6

**Certificate of accomplishment
Intermediate ESL reading and writing**

Students completing the program will be able to...

- A. demonstrate college-essay writing skills.
- B. demonstrate college-level critical reading skills.
- C. demonstrate critical thinking skills and prepare them for more advanced college-level courses.

<i>required courses:</i>	<i>units</i>
ESL-076 Intermediate Academic Reading Skills.....	3
ESL-078 Intermediate Academic Writing Skills.....	3
ESL-086 High-Intermediate Academic Reading Skills....	3
ESL-088 High-Intermediate Academic Writing Skills.....	3
total minimum required units	12

**Certificate of accomplishment
Advanced ESL reading and writing**

Students completing the program will be able to...

- A. demonstrate advanced-level essay writing skills.
- B. demonstrate advanced-level critical reading skills.
- C. demonstrate advanced-level critical thinking skills.
- D. demonstrate language control and sentence clarity in writing by focusing on the grammar in the context of their writing.
- E. demonstrate improved conversation skills, as well as career/major exploration.

<i>required courses:</i>	<i>units</i>
CARER-130 Career and Major Exploration.....	1
ESL-080 Grammar for High Intermediate ESL Students.....	2
ESL-086 High-Intermediate Academic Reading Skills....	3
ESL-088 High-Intermediate Academic Writing Skills.....	3
ESL-090 Grammar for Advanced ESL Students	2
ESL-096A Advanced Academic Reading Skills.....	3
ESL-098A Advanced Academic Writing Skills.....	3
total minimum required units	17

**Certificate of accomplishment
ESL: Transition to college-level English**

Students completing the program will be able to...

- A. transition into college and transfer-level English and Counseling courses.
- B. improve college-level essay writing skills.
- C. improve college-level critical reading skills.
- D. improve college-level critical thinking skills.
- E. improve language control and sentence clarity in writing by focusing on grammar in the context of their writing.
- F. improve success, including possible transfer plans.

<i>required courses:</i>		<i>units</i>
ENGL-122	First-Year College Composition and Reading	3

or		
ENGL-122A	First-Year College Composition and Reading for Multilingual Students	3
COUNS-120	Student Success.....	3

<i>plus at least 5 units from:</i>		
ENGL-116	College Reading Development	3
ENGL-117	Integrated College Reading and Writing Development.....	5
ENGL-118	College Writing Development	3
ESL-096A	Advanced Academic Reading Skills.....	3
ESL-098A	Advanced Academic Writing Skills.....	3
ESL-117A	Integrated Reading and Writing: Advanced English Language Learners.....	5

<i>plus at least 2 units from:</i>		
ESL-090	Grammar for Advanced ESL Students	2
ESL-095	Advanced Oral Communication Skills	2
total minimum required units		13

ESL-067 Low-Intermediate College English Skills

- 2 units P/NP
- *Non degree applicable*
 - *18 hours lecture/54 hours laboratory per term*

This course focuses on the needs of ESL students at the low-intermediate level to help them increase confidence, fluency, and accuracy in listening, speaking, reading, and writing in an academic environment. The goals of the course are to develop and improve students' English language skills and to introduce students to them to the norms of the American college classroom.

ESL-075 Intermediate Oral Communication Skills

- 2 units SC
- *Non degree applicable*
 - *18 hours lecture/54 hours laboratory per term*
 - *Recommended: Eligibility for ESL-067 or equivalent*

This intermediate course complements the ESL reading and writing courses, ESL-076 and ESL-078, and is designed for non-native speakers of English at the Intermediate Level. The focus is on oral comprehension and increased fluency and accuracy in spoken English. The course will also present strategies for developing a self-awareness of strengths and challenges of communicating in English. Students will explore a range of topics through a variety of activities.

ESL-076 Intermediate Academic Reading Skills

3 units SC

- *Non degree applicable*
- *54 hours lecture/18 hours laboratory per term*
- *Recommended: ESL-067 or placement through the ESL assessment process or equivalent*

This course focuses on the needs of ESL students at the intermediate level as they develop their academic reading skills. Students will practice strategies for reading, comprehending, and responding to academic texts at the intermediate level. The course will also present grammar, high-frequency vocabulary, study skills, campus resources, and the norms of American college.

ESL-078 Intermediate Academic Writing Skills

3 units SC

- *Non degree applicable*
- *54 hours lecture/18 hours laboratory per term*
- *Recommended: ESL-067 or placement through the ESL assessment process or equivalent*

This course focuses on the needs of ESL students at the intermediate level, and aims to help them increase confidence, fluency, and accuracy as they write for academic purposes. Students will practice the skills needed to write, revise, and edit academic sentences and paragraphs. Emphasis mechanics and usage. Norms of the American college classroom will also be presented.

ESL-080 Grammar for High Intermediate ESL Students

2 units SC

- *Non degree applicable*
- *36 hours lecture per term*
- *Recommended: ESL-078 or equivalent*

This course is supplemental to ESL-086 and ESL-088 and is designed for ESL students at the high intermediate level. After a brief review of sentence patterns, word order, simple present and present continuous verb tenses, the course covers simple past, past progressive and present perfect tenses; modal auxiliaries; and sentence types. Students will also learn methods for identifying and correcting their mistakes during the editing process.

ESL-085 High-Intermediate Oral Communication Skills

2 units SC

- *Non degree applicable*
- *18 hours lecture/54 hours laboratory per term*
- *Recommended: Eligibility for ESL-075 or equivalent*

This high-intermediate course complements the ESL reading and writing courses, ESL-086 and ESL-088, and is designed for non-native speakers of English at the high-intermediate Level. Building on ESL-075, this course focuses on listening and speaking skills for academic purposes. Exploring a variety of topics, students will work on oral comprehension of lectures and presentations, note-taking, and academic discussion. This course will also present strategies for developing a self-awareness of strengths and challenges of communicating in English.

ESL-086 High Intermediate Academic Reading Skills

3 units SC

- *Non degree applicable*
- *54 hours lecture/18 hours laboratory per term*
- *Recommended: ESL-076 or placement through the ESL assessment process or equivalent*

This course focuses on the needs of ESL students at the high-intermediate level as they develop their academic reading skills. Students will practice strategies for reading, comprehending, analyzing, and responding to academic texts at the high-intermediate level. The course will also present reading-related writing skills, methods for vocabulary development, and high-intermediate grammar concepts. Study strategies, campus resources, and the norms of the American college classroom will also be presented.

ESL-088 High-Intermediate Academic Writing Skills

3 units SC

- *Non degree applicable*
- *54 hours lecture/18 hours laboratory per term*
- *Recommended: ESL-078 or placement through the ESL assessment process or equivalent*

This course focuses on the needs of ESL students at the high-intermediate level, with the aim of helping them increase confidence, fluency, and accuracy as they write coherent paragraphs and thesis-driven essays. Following the steps of the writing process, students will compose paragraphs and essays for an audience of their peers. They will also practice editing strategies to identify and correct sentence-level errors common to high-intermediate ESL learners, including errors in mechanics and usage. Norms of the American college classroom will also be covered.

ESL-090 Grammar for Advanced ESL Students

2 units SC

- *Non degree applicable*
- *36 hours lecture per term*
- *Recommended: ESL-080 and 088 or equivalents*

This course is supplemental to ESL-096A and ESL-098A and is designed for ESL students at the advanced level. The course covers sentence combining, compound-complex sentences, embedded clauses, direct and indirect objects, use of gerunds and infinitives, passive voice, use of articles, and advanced editing strategies for longer essays.

ESL-091 Topics in Vocational English Skills

.5-3 units SC

- *Non degree applicable*
- *Variable hours*

This course is designed for advanced English as a Second Language students. The focus of this course will change depending on the vocational area that it serves. It will teach reading skills, vocabulary-building strategies, writing skills, listening and oral communication skills, and study skills to help students master the content and requirements of a course required for a certificate of achievement or completion.

ESL-095 Advanced Oral Communication Skills

2 units SC

- *Non degree applicable*
- *18 hours lecture/54 hours laboratory per term*
- *Recommended: Eligibility for ESL-085 or equivalent*

This advanced ESL course complements the ESL reading and writing courses, ESL-096A and ESL-098A and is designed for non-native speakers of English at the Advance Level. Building on ESL-085, this course focuses on listening and speaking skills with an emphasis on listening and speaking in academic settings. Exploring a variety of conceptually and linguistically complex topics, students will work on oral comprehension of lectures and presentations, strategies for note-taking, and academic discussions. This course will also present strategies for developing a self-awareness of strengths and challenges of communicating in English.

ESL-096A Advanced Academic Reading Skills

3 units SC

- *Non degree applicable*
- *54 hours lecture/18 hours laboratory per term*
- *Recommended: ESL-086 and ESL-088 or placement through the ESL assessment process or equivalents*

This course focuses on the needs of ESL students at the advanced level as they develop critical reading and academic skills. Working with college-level texts, students will practice identifying themes, main and supporting points, and methods of organization. Students will practice strategies for reading, comprehending, analyzing, and responding to academic texts at the advanced level. This course will also emphasize reading-related writing skills, and vocabulary development. Effective study skills, campus resources, and the norms of the American college classroom will also be presented.

ESL-097A Advanced Integrated Reading, Writing, and Study Skills

5 units SC

- *90 hours lecture/18 hours laboratory per term*
- *Recommended: ESL-086 or ESL-088 or equivalent*

This course focuses on the needs of multilingual students at the advanced level to help them increase their confidence, fluency, and accuracy as they develop critical reading, writing, and academic skills. Students will practice strategies for reading, comprehending, analyzing, and responding to college-level texts. Following the steps of the writing process, they will compose thesis-driven essays for an academic audience, with coherent paragraphs and a variety of sentence structures. They will also practice editing strategies to identify and correct sentence-level errors common to advanced English-language learners, as well as errors in mechanics and usage. Although the central focus of the course is on the connections between reading and writing, it also emphasizes study skills, campus resources, and the norms of the American college classroom.

ESL-098A Advanced Academic Writing Skills

3 units SC

- *Non degree applicable*
- *54 hours lecture/18 hours laboratory per term*
- *Recommended: ESL-086 and ESL-088 or placement through the ESL assessment process or equivalents*

This course focuses on the needs of ESL students at the advanced level, with the aim of helping them increase confidence, fluency, and accuracy as they write college-level essays. Following the steps of the writing process, students will compose thesis-driven essays for an academic audience. The course will focus on the generation of coherent paragraphs with a variety of sentence structures. To complement and inspire their writing, students will read, analyze, and write about a variety of college-level texts. They will also practice editing strategies to identify and correct sentence-level errors common to advanced ESL learners, as well as errors in mechanics and usage. Norms of the American college classroom will also be presented.

ESL-110 Reading and Writing Skills for ECE-124

3 units SC

- *54 hours lecture per term*
- *Co-requisite: ECE-124 or Equivalent*
- *Recommended: ESL-088 or Equivalent*

This course is designed for English as a Second Language students concurrently enrolled in ECE-124. It is intended for advanced ESL students to develop college-level reading, writing, listening, speaking, and study skills at the same time as they are learning the content in ECE-124. This course will use the ECE-124 textbook as the subject matter on which to practice and build students' English-language skills. CSU

ESL-111 Reading and Writing Skills for ECE-123

3 units SC

- *54 hours lecture per term*
- *Co-requisite: ECE-123 or Equivalent*
- *Recommended: ESL-088 or Equivalent*

This course is designed for English as a Second Language students concurrently enrolled in ECE-123. It is intended for advanced ESL students to develop college-level reading, writing, listening, speaking, and study skills at the same time as they are learning the content in ECE-123. This course will use the ECE-123 textbook as the subject matter on which to practice and build students' English-language skills. CSU

ESL-112 Reading and Writing Skills for ECE-125

3.5 units SC

- *54 hours lecture/18 hours laboratory per term*
- *Co-requisite: ECE-125 or Equivalent*
- *Recommended: ESL-088 or Equivalent*

This course is designed for English as a Second Language students concurrently enrolled in ECE-125. It is intended for advanced ESL students to develop college-level reading, writing, listening, speaking, and study skills at the same time as they are learning the content in ECE-125. This course will use the ECE-125 textbook as the subject matter on which to practice and build students' English-language skills. CSU

ESL-113 Reading and Writing Skills for ECE-130

3.5 units SC

- 54 hours lecture/18 hours laboratory per term
- Co-requisite: ECE-130 or Equivalent
- Recommended: ESL-088 or Equivalent

This course is designed for English as a Second Language students concurrently enrolled in ECE-130. It is intended for advanced ESL students to develop college level reading, writing, listening, speaking, and study skills at the same time as they are learning the content in ECE 130. This course will use the ECE-130 textbook as the subject matter on which to practice and build students' English language skills. CSU

ESL-117A Integrated Reading and Writing: Advanced English Language Learners

5 units SC

- 90 hours lecture per term
- Recommended: ESL-096A and ESL-098A or equivalents
- Note: This course is equivalent to the completion of ENGL-116 and ENGL-118 or ENGL-117. Only one of ENGL-116, 117, 118 or ESL-117A may be applied to the units required for the associate degree.

This course provides an integrated approach to reading and writing for highly advanced English-language learners who have been assessed or advised to take both ENGL-116 and 118 to prepare them for ENGL-122, transfer-level English. Students will prepare for college-level work; practice critical reading, writing, and thinking skills; and improve their vocabulary and study skills. Students will also actively engage with their peers, read and interact with a variety of college-level texts, and complete both formal and informal writing assignments connected to these readings. The central focus throughout the course will be on the ways reading and writing inform each other. The course will also cover grammar concepts and revision and editing methods specific to English-language learners. CSU, UC

ENVIRONMENTAL SCIENCE - ENVSC

Joseph Gorga, Dean

Physical Sciences and Engineering Division

Physical Sciences Building, Room 263

Possible career opportunities

Career opportunities in the field of environmental studies have grown with the increase of human population and the need to document and study the relationship between humans and nature. Environmental scientists are needed to monitor, interpret, analyze and enforce the guidelines of governmental policies. Careers include working for the government at all levels, working for companies in science and technology, as well as working in companies in energy fields. Such specialties include pollution prevention, resource conservation and environmental restoration, environmental stewardship, and newly emerging fields such as energy management technology, geospatial technology, and biodiversity preservation. Individuals studying in this field are trained to provide both public and private environmental services in a variety of settings: private business, consulting services and government agencies.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

**Associate in science degree
Environmental science****Students completing the program will be able to...**

- differentiate between different biotic and abiotic components of the environment.
- explain and analyze man-made impacts on the environment
- apply the scientific method for environmental analysis.
- explain, illustrate and analyze chemical bonds and reactions.
- apply environmental science concepts and analytical procedures in various fields

The associate in science degree in environmental science offers a distinctive program of interdisciplinary study. It is a field of inquiry exploring energy and climate systems and their complex relationships with the world's diverse human cultures. To achieve this goal, students and faculty work together across disciplines to develop an understanding of environmental sustainability in all its dimensions. The program focuses on current environmental concerns that have far-reaching implications for the fate of human society, ecological systems, and energy diversity. This involves an integration of knowledge from a variety of disciplines to understand the function of the ecological system and human impact upon these systems at a local, regional, and global scale.

Students are advised that there are a wide range of environmental science areas of emphasis offered at the university level. Therefore, while choosing electives, students are advised to consult with a counselor or faculty advisor to select courses that will meet the requirements of an area of emphasis at their selected transfer institution. DVC environmental science students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to four-year institutions of their choice are met. Students who intend to transfer are advised to select either General Education Option 2 (IGETC) or Option 3 (CSU GE). General Education Option 1 (DVC General Education) is appropriate for students who do not intend to transfer.

To earn an associate in science degree, students must complete each required course with a "C" grade or higher and complete general education requirements as listed in the catalog. Degree requirements can be completed by attending classes in the day, evening, online, or a combination of those. Certain classes may satisfy both major and other general education requirements; however, the units are only counted once.

Environmental science

<i>major requirements:</i>		<i>units</i>
BIOSC-170	Environmental Science	3
GEOG-140	Introduction to Weather	3
GEOL-120	Physical Geology.....	3

<i>plus at least 4 units from:</i>		
CHEM-108	Introductory Chemistry	4
CHEM-120	General College Chemistry I.....	5

<i>plus at least 4 units from:</i>		
MATH-142	Elementary Statistics with Probability	4
MATH-192	Analytic Geometry and Calculus I	5

<i>plus at least 9 units from:</i>		
ARCHI-207	Environmental Control Systems	3
BIOSC-126	Ecology and Field Biology	4
ENGIN-130	Energy, Society, and the Environment.....	3
ENSYS-120	Introduction to Energy Systems	3
ENSYS-125	Building Envelope and Systems	3
GEOG-124	Thinking and Communicating Geospatially.....	3
GEOG-125	Introduction to Geographic Information Systems (GIS)	3
GEOG-129	Field Data Acquisition and Management	3
GEOG-160	Introduction to Remote Sensing	4
PHYS-120	General College Physics I.....	4
PHYS-121	General College Physics II	4
PHYS-130	Physics for Engineers and Scientists A: Mechanics and Wave Motion.....	4
PHYS-230	Physics for Engineers and Scientists B: Heat and Electro-Magnetism.....	4

total minimum units for the major 26

Associate in science in environmental science for transfer

Students completing the program will be able to...

- recognize and understand chemical components in physical and biological aspects of ecosystems.
- apply the scientific method to collect data on environmental problems, and use data to analyze and solve quantitative and qualitative problems.
- evaluate the relationship of organisms to each other and to their changing chemical and physical environment.
- integrate environmental and economic issues.
- demonstrate the proper use of common laboratory equipment and use proper laboratory techniques in running experiments.

The associate in science in environmental science for transfer degree is designed as a two-year program that offers an introduction to the basic principles of environmental science, which includes an integration of knowledge from a variety of disciplines to understand ecological systems and human impacts on these systems.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education pattern (CSU GE); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system, or those students who do not intend to transfer.

Some courses in the major satisfy both major and CSUGE/IGETC general education requirements; however, the units are only counted once toward the 60-unit requirement for an associate's degree. Students are advised for this major, they may use the IGETC for STEM (Science, Technology, Engineering and Mathematics) pattern. This pattern allows students to complete one course in area 3A; one course in Area 3B; and two courses in Area 4 from two different disciplines. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

<i>major requirements</i>		<i>units</i>
BIOSC-170	Environmental Science	3
ECON-221	Principles of Microeconomics	3
MATH-142	Elementary Statistics with Probability	4
MATH-192	Analytic Geometry and Calculus I	5

select 1 of 2 options:

Option 1: Biology sequence

BIOSC-130	Principles of Cellular and Molecular Biology	5
BIOSC-131	Principles of Ecology, Evolution and Organismal Biology.....	5
CHEM-120	General Chemistry I	5

or

Option 2: Chemistry sequence

BIOSC-130	Principles of Cellular and Molecular Biology	5
CHEM-120	General Chemistry I	5
CHEM-121	General Chemistry II	5

plus 4 units from:

GEOL-120	Physical Geology.....	3
and		
GEOL-122	Physical Geology Laboratory.....	1
or		
GEOG-120	Physical Geography	3
and		
GEOG-121	Physical Geography Laboratory	1

plus 8 units from:

PHYS-120	General College Physics I	4
and		
PHYS-121	General College Physics II	4
or		
PHYS-130	Physics for Engineers and Scientists A: Mechanics and Wave Motion.....	4
and		
PHYS-230	Physics for Engineers and Scientists B: Heat and Electro-Magnetism.....	4
total minimum units for the major		42

ENVSC-100 Exploring Environmental Science and Engineering

- 1 unit P/NP
 • 5 hours lecture/35 hours laboratory per term

This course introduces students to current issues and careers in environmental science and engineering. Topics include climate change, wetland ecology and water quality in the Sacramento-San Joaquin River Delta. Students gain hands-on experience both in the laboratory and during field trips as well as explore careers and work readiness skills related to the fields of environmental science and engineering. CSU

ENVSC-295 Occupational Work Experience Education in ENVSC

- 1-4 units SC
 • May be repeated three times
 • Variable hours
 • Note: In order to enroll in ENVSC-295, students must be employed, register for the course, complete an online Employment Form, and participate in an orientation. Employment Form can be accessed at www.dvc.edu/wrkx. Incomplete grades are not awarded for this course.

ENVSC-295 is supervised employment that extends classroom learning to the job site and relates to the student's chosen field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Five hours work per week or seventy-five hours work per term is equal to one unit. Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

FILM, TELEVISION, AND ELECTRONIC MEDIA – FTVE

Toni Fannin, Dean
 Applied and Fine Arts Division
 Business and Foreign Language Building, Room 204

Possible career opportunities

Students majoring in FTVE enter broadcasting, cable, online media, and related industries. They can pursue graduate degrees in the field of mass or electronic communication for work in audio and video production, web development, radio and television, cable television, and media departments of agencies, institutions, and businesses.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in arts degree

Television arts

Students completing the program will be able to...

- A. produce for broadcast and digital distribution utilizing three-camera studio format principles.
- B. operate cameras and professional sound equipment.
- C. perform digital nonlinear editing.
- D. produce still and motion graphics.
- E. produce for broadcast and digital distribution utilizing field production principles.
- F. write scripts for various production formats.
- G. direct projects for various production formats.
- H. transfer to four-year institutions majoring in broadcast communication arts.
- I. qualify for entry-level employment in broadcasting.
- J. apply their planning skills for project management.
- K. identify major trends in the history of broadcasting.

The associate degree program in television arts is designed as a two year curricular pathway that offers a broad general education while preparing students for entry-level positions such as: associate producer, assistant director, on-camera talent, camera operator, sound technician, video switcher, floor director, videotape editor, production assistant, radio board operator, radio producer, radio production engineer, and radio on-air talent.

Students must complete each of the required courses with a "C" grade or higher. Required courses can only be completed by attending a combination of day and evening classes. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

Selected courses in the program may also meet some lower division requirements for bachelor of arts programs at certain California State University campuses. Students who intend to transfer are advised to consult with a counselor regarding specific requirements.

Film, television, and electronic media

<i>major requirements:</i>		<i>units</i>
ARTDM-105	Introduction to Digital Imaging	3
FTVE-120	Introduction to TV Studio Production.....	3
FTVE-130	Intermediate TV Studio Production	3
FTVE-165	Digital Editing	3
FTVE-240	History of Broadcasting and Electronic Media	3

<i>plus at least 6 units from:</i>		
FTVE-140	Introduction to Film and Media Scriptwriting ...	3
FTVE-160	Introduction to Film Production	3
JRNAL-110	Mass Media of Communication.....	3

<i>plus at least 3 units from:</i>		
FTVE-132	Advanced TV Studio Production	3
FTVE-150	Topics in Film, Television, and Electronic Media	0.3-4
FTVE-161	Intermediate Film Production.....	3
FTVE-166	Intermediate Digital Editing.....	3

<i>plus at least 9 units from:</i>		
ARTDM-115	Digital Interface Design.....	3
ARTDM-149	Fundamentals of Digital Video.....	3
ARTDM-170	Animation for Interaction Design	3
ARTDM-190	Digital Media Projects	3
ARTDM-195	Applied Production for Digital Media	3
BUSMG-191	Small Business Management	3
BUSMG-192	Entrepreneurship and Venture Management ...	3
BUSMK-255	Advertising	3
COMM-148	Performance of Literature	3
DRAMA-122	Basic Principles of Acting	3
DRAMA-123	Intermediate Principles of Acting.....	3
DRAMA-124	Advanced Principles of Acting.....	6
DRAMA-126	Auditioning and Preparation for the Camera....	3
ELTRN-116	Electronics I.....	3
ENGL-151	The Short Story	3
ENGL-152	Film as Literature.....	3
FTVE-132	Advanced TV Studio Production	3
FTVE-140	Introduction to Film and Media Scriptwriting ...	3
FTVE-150	Topics in Film, Television, and Electronic Media	0.3-4
FTVE-160	Introduction to Film Production	3
FTVE-161	Intermediate Film Production.....	3
FTVE-166	Intermediate Digital Editing.....	3
FTVE-205	Introduction to Film and Media Arts	3
FTVE-280	American Cinema 1900-1950.....	3
FTVE-281	World Cinema 1900-1960	3
FTVE-282	American Cinema 1950 to the Present.....	3
FTVE-283	World Cinema 1960 to the Present.....	3
FTVE-295	Occupational Work Experience Education in FTVE.....	1-4
FTVE-296	Internship in Occupational Work Experience Education in FTVE	1-4
FTVE-298	Independent Study.....	0.5-3
total minimum units for the major		33

*Note: There may be no duplication of course units between major requirements and elective courses.

Associate in science degree in film, television, and electronic media for transfer

Students completing the program will be able to...

- A. seamlessly transfer to a CSU
- B. demonstrate a working knowledge of the operation of basic production equipment including cameras, sound recording equipment, lights, microphones and grip equipment.
- C. demonstrate a working knowledge of the operation of basic post production equipment and software for the purposes of producing various types of programming.
- D. demonstrate a working knowledge of the theory and practice of recording sound and visuals in professional formats.
- E. demonstrate a working knowledge of the theory and practice of editing original material with the goal of producing finished programs according to professional standards.
- F. demonstrate a working knowledge of the theory and practice of producing scripts in a variety of formats for visual presentation.
- G. identify the major trends in world cinema and television history.
- H. utilize critical thinking skills to analyze and evaluate various approaches to applying visual concepts to a variety of storytelling formats.

The associate in science in film, television, and electronic media (FTVE) for transfer will prepare students for transfer into bachelor's degree programs in broadcast, film, TV, and similar majors. Career opportunities include TV and video producing, directing, camera operation, video editing, script-writing, audio recording and mixing, and radio programming.

The associate in science in film, television, and electronic media for transfer degree is primarily intended for students who plan to complete a bachelor's degree at a California State University (CSU) in areas of study such as radio-television-film, television-film, video, film, and electronic arts. Students completing this degree are guaranteed admission to the CSU system, but not necessarily to a particular major or campus.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education pattern (CSU GE); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system, or those students who do not intend to transfer.

Students must complete each course used to meet a major requirement with a “C” grade or higher. Some courses in the major satisfy both major and CSUGE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

<i>major requirements:</i>		<i>units</i>
ARTDM-130	Introduction to Digital Audio	3
FTVE-140	Introduction to Film and Media Scriptwriting ...	3
FTVE-205	Introduction to Film and Media Arts	3

<i>plus at least 3 units from:</i>		
FTVE-240	History of Broadcasting and Electronic Media	3
JRNAL-110	Mass Media of Communication	3

<i>plus at least 3 units from:</i>		
FTVE-120	Introduction to TV Studio Production	3
FTVE-160	Introduction to Film Production	3

<i>plus at least 3 units from:</i>		
<i>any course not used above or:</i>		
FTVE-161	Intermediate Film Production	3
FTVE-280	American Cinema 1900-1950	3
FTVE-281	World Cinema 1900-1960	3
FTVE-283	World Cinema 1960 to the Present	3

<i>plus at least 3 units from:</i>		
<i>any course not used above or:</i>		
ARTDM-140	Motion Graphics	3
FTVE-130	Intermediate TV Studio Production	3
FTVE-132	Advanced TV Studio Production	3
FTVE-141	Intermediate Film and Media Scriptwriting	3
FTVE-142	Advanced Film and Media Scriptwriting	3
FTVE-165	Digital Editing	3
FTVE-166	Intermediate Digital Editing	3
FTVE-200	American Cinema/American Culture	3
FTVE-210	American Ethnic Cultures in Film	3
FTVE-260	Ethnic Images in United States Television	3
FTVE-282	American Cinema 1950 to Present	3
FTVE-296	Internship in Occupational Work Experience Education in Film, Television, and Electronic Media	1-4
total minimum units for the major		21

Certificate of achievement

Television arts

Students completing the program will be able to...

- A. produce for broadcast and digital distribution utilizing three-camera studio format principles.
- B. operate cameras and professional sound equipment.
- C. perform digital nonlinear editing.
- D. produce still and motion graphics.
- E. produce for broadcast and digital distribution utilizing field production principles.
- F. write scripts for various production formats.
- G. direct projects for various production formats.
- H. transfer to four-year institutions majoring in broadcast communication arts.
- I. qualify for entry-level employment in broadcasting.
- J. apply their planning skills for project management.
- K. identify major trends in the history of broadcasting.

This program prepares students for entry-level positions such as: associate producer, assistant director, on-camera talent, camera operator, sound technician, video switcher, floor director, videotape editor, production assistant, radio board operator, radio producer, radio production engineer, and radio on-air talent.

Selected courses in the program may meet some lower division requirements for the bachelor of arts program at certain California State University campuses. Consult with department faculty or a college counselor for more information.

To earn a certificate of achievement, students must complete each of the required courses with a “C” grade or higher. Required courses can only be completed by attending a combination of day and evening classes.

<i>required courses:</i>		<i>units</i>
ARTDM-105	Introduction to Digital Imaging	3
FTVE-120	Introduction to TV Studio Production	3
FTVE-130	Intermediate TV Studio Production	3
FTVE-165	Digital Editing	3
FTVE-240	History of Broadcasting and Electronic Media	3

<i>plus at least 6 units from:</i>		
FTVE-140	Introduction to Film and Media Scriptwriting ...	3
FTVE-160	Introduction to Film Production	3
JRNAL-110	Mass Media of Communication	3

<i>plus at least 3 units from:</i>		
FTVE-132	Advanced TV Studio Production	3
FTVE-150	Topics in Film, Television, and Electronic Media	0.3-4
FTVE-161	Intermediate Film Production	3
FTVE-166	Intermediate Digital Editing	3

Film, television, and electronic media

plus at least 9 units from:

ARTDM-115	Digital Interface Design.....	3
ARTDM-149	Fundamentals of Digital Video.....	3
ARTDM-170	Animation for Interaction Design.....	3
ARTDM-190	Digital Media Projects.....	3
ARTDM-195	Applied Production for Digital Media.....	3
BUSMG-191	Small Business Management.....	3
BUSMG-192	Entrepreneurship and Venture Management ...	3
BUSMK-255	Advertising.....	3
COMM-148	Performance of Literature.....	3
DRAMA-122	Basic Principles of Acting.....	3
DRAMA-123	Intermediate Principles of Acting.....	3
DRAMA-124	Advanced Principles of Acting.....	6
DRAMA-126	Auditioning and Preparation for the Camera....	3
ELTRN-116	Electronics I.....	3
ENGL-151	The Short Story.....	3
ENGL-152	Film as Literature.....	3
FTVE-132	Advanced TV Studio Production.....	3
FTVE-140	Introduction to Film and Media Scriptwriting ...	3
FTVE-150	Topics in Film, Television, and Electronic Media.....	0.3-4
FTVE-160	Introduction to Film Production.....	3
FTVE-161	Intermediate Film Production.....	3
FTVE-166	Intermediate Digital Editing.....	3
FTVE-205	Introduction to Film and Media Arts.....	3
FTVE-280	American Cinema 1900-1950.....	3
FTVE-281	World Cinema 1900-1960.....	3
FTVE-282	American Cinema 1950 to the Present.....	3
FTVE-283	World Cinema 1960 to the Present.....	3
FTVE-295	Occupational Work Experience Education in FTVE.....	1-4
FTVE-296	Internship in Occupational Work Experience Education in FTVE.....	1-4
FTVE-298	Independent Study.....	0.5-3
total minimum required units		33

*Note: There may be no duplication of course units between major requirements and elective courses.

**Certificate of accomplishment
Television arts -
Basic digital field production**

Students completing the program will be able to...

- A. operate cameras and professional sound equipment.
- B. perform digital nonlinear editing.
- C. produce still and motion graphics.
- D. produce for broadcast and digital distribution utilizing field production principles.
- E. write scripts for various production formats.
- F. direct projects for various production formats.
- G. transfer to four-year institutions majoring in broadcast communication arts.
- H. qualify for entry-level employment in broadcasting.
- I. apply their planning skills for project management.
- J. identify major trends in the history of broadcasting.

The television arts program prepares students for entry level positions in one of four specialty areas: studio production, field production, post production, and writing.

To earn a certificate of accomplishment, students must complete each of the required courses with a "C" grade or higher. Required courses can only be completed by attending a combination of day and evening classes.

<i>required courses:</i>		<i>units</i>
FTVE-161	Intermediate Film Production.....	3
FTVE-165	Digital Editing.....	3
FTVE-240	History of Broadcasting and Electronic Media.....	3

plus at least 6 units from:

ARTDM-105	Introduction to Digital Imaging.....	3
ARTDM-190	Digital Media Projects.....	3
ARTDM-195	Applied Production for Digital Media.....	3
FTVE-150	Topics in Film, Television, and Electronic Media.....	0.3-4
FTVE-160	Introduction to Film Production.....	3
FTVE-295	Occupational Work Experience Education in FTVE.....	1-4
FTVE-296	Internship in Occupational Work Experience Education in FTVE.....	1-4
FTVE-298	Independent Study.....	0.5-3
total minimum required units		15

**Certificate of accomplishment
Television arts -
Basic studio production**

Students completing the program will be able to...

- A. produce for broadcast and digital distribution utilizing three-camera studio format principles.
- B. operate cameras and professional sound equipment.
- C. perform digital nonlinear editing.
- D. produce still and motion graphics.
- E. write scripts for various production formats.
- F. direct projects for various production formats.
- G. qualify for entry-level employment in broadcasting.
- H. apply their planning skills for project management.
- I. identify major trends in the history of broadcasting.

The television arts program prepares students for entry level positions in one of four specialty areas: studio production, field production, post production, and writing.

To earn a certificate of accomplishment, students must complete each of the required courses with a "C" grade or higher. Required courses can only be completed by attending a combination of day and evening classes.

<i>required courses:</i>		<i>units</i>
FTVE-120	Introduction to TV Studio Production.....	3
FTVE-130	Intermediate TV Studio Production.....	3
FTVE-132	Advanced TV Studio Production.....	3
FTVE-240	History of Broadcasting and Electronic Media.....	3

plus at least 3 units from:

ARTDM-105	Introduction to Digital Imaging	3
ARTDM-190	Digital Media Projects	3
ARTDM-195	Applied Production for Digital Media	3
FTVE-150	Topics in Film, Television, and Electronic Media	0.3-4
FTVE-295	Occupational Work Experience Education in FTVE.....	1-4
FTVE-296	Internship in Occupational Work Experience Education in FTVE	1-4
FTVE-298	Independent Study.....	0.5-3
total minimum required units		15

Certificate of accomplishment

Television arts -

Basic writing for digital medium

Students completing the program will be able to...

- A. write scripts for various production formats.
- B. direct projects for various production formats.
- C. qualify for entry-level employment in broadcasting.
- D. apply their planning skills for project management.
- E. identify major trends in the history of broadcasting.

The television arts program prepares students for entry level positions in one of four specialty areas: studio production, field production, post production, and writing.

To earn a certificate of accomplishment, students must complete each of the required courses with a "C" grade or higher. Required courses can only be completed by attending a combination of day and evening classes.

<i>required courses:</i>	<i>units</i>	
FTVE-140	Introduction to Film and Media Scriptwriting... 3	
FTVE-141	Intermediate Film and Media Scriptwriting..... 3	
FTVE-142	Advanced Film and Media Scriptwriting..... 3	
FTVE-240	History of Broadcasting and Electronic Media	3

plus at least 3 units from:

COMM-148	Performance of Literature	3
ENGL-151	The Short Story	3
FTVE-150	Topics in Film, Television, and Electronic Media	0.3-4
FTVE-295	Occupational Work Experience Education in FTVE.....	1-4
FTVE-296	Internship in Occupational Work Experience Education in FTVE	1-4
FTVE-298	Independent Study.....	0.5-3
JRNL-110	Mass Media Communication	3
total minimum required units		15

FTVE-120 Introduction to TV Studio Production

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course introduces theory, terminology and operation of a multi-camera television studio and control room. Topics include studio signal flow, directing, theory and operation of camera and audio equipment, switcher operation, fundamentals of lighting, graphics, video control and video recording and real-time video production. CSU

FTVE-130 Intermediate TV Studio Production

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Prerequisite: FTVE-120 or equivalent
- Recommended: Eligibility for ENGL-122 or equivalent

This is an intermediate class designed to advance the student's skills in producing and directing TV programs and operating television equipment. Students will produce and direct programs and prepare for positions in broadcast and cable TV as well as industrial television production facilities. CSU

FTVE-132 Advanced TV Studio Production

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Prerequisite: FTVE-130 or equivalent
- Recommended: Eligibility for ENGL-122 or equivalent

This is an advanced class designed to increase the student's skills in producing and directing TV programs and operating television equipment. Students will produce and direct programs to prepare for positions in broadcast and cable TV as well as industrial television production facilities. CSU

FTVE-140 Introduction to Film and Media Scriptwriting

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This is a basic introductory course in writing for the film and electronic media. Preparing scripts in proper formats, including fundamental technical, conceptual and stylistic issues related to writing fiction and non-fiction scripts for informational and entertainment purposes in film and electronic media are emphasized. A writing evaluation component is a significant part of the course requirement. CSU, UC

FTVE-141 Intermediate Film and Media Scriptwriting

3 units SC

- 54 hours lecture per term
- Prerequisite: FTVE-140 or equivalent
- Recommended: Eligibility for ENGL-122 or equivalent

This intermediate scriptwriting writing class builds on skills acquired in FTVE-140 with a focus on developing dramatic conflict within a three-act structure. Emphasis is placed on writing for a visual medium through assignments including the completion of the first-act of a feature-length screenplay. CSU, UC

FTVE-142 Advanced Film and Media Scriptwriting

3 units SC

- 54 hours lecture per term
- Prerequisite: FTVE-141 or equivalent
- Recommended: Eligibility for ENGL-122 or equivalent

This advanced scriptwriting class builds on skills acquired in FTVE-141 with a focus on the production of a feature-length screenplay. Emphasis is placed on developing and refining authentic characters, solid stories, and dramatic structure through writing exercises and evaluations. CSU, UC

FTVE-150 Topics in Film, Television, and Electronic Media

.3-4 units SC

- Variable hours
- Recommended: Eligibility for ENGL-122 or equivalent

A supplemental course in film, television, and electronic media to provide a study of current concepts and problems in film, television, and electronic media. Specific topics will be announced in the schedule of classes. CSU

FTVE-160 Introduction to Film Production

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course provides an introduction to short, single-camera digital video focusing on the aesthetics and fundamentals of scripting, producing, directing on location, post-production, and exhibition/distribution. Theory, terminology, and operation of single camera video production, including composition and editing techniques, camera operation, portable lighting, video recorder operation, audio control and basic editing will also be covered. CSU, UC

FTVE-161 Intermediate Film Production

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Prerequisite: FTVE-160 or equivalent
- Recommended: Eligibility for ENGL-122 or equivalent

In this course students produce intermediate level, single-camera digital videos that utilize mixed soundtracks, sophisticated lighting schemes, sync sound, polished editing and the use of visual metaphors. CSU, UC

FTVE-165 Digital Editing

3 units SC

- 36 hours lecture/72 hours laboratory per term

This course is an introduction to the techniques, concepts, and aesthetics of digital editing for film, television, and digital media using professional software programs. Emphasis is placed on organization, timelines, and story development as well as editing for visual and audio effect. CSU, UC

FTVE-166 Intermediate Digital Editing

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Prerequisite: FTVE-165 or equivalent
- Recommended: Eligibility for ENGL-122 or equivalent

This intermediate course is designed to advance the student's editing skills using current industry standard software programs. CSU, UC

FTVE-200 American Cinema/American Culture

3 units SC

- 54 hours lecture per term

This course presents the history of cinema focusing on various genres in American filmmaking in a larger cultural context including literature, drama, vaudeville, and related art forms. The course will investigate the interplay of economic, industrial, aesthetic, and cultural forces that shape the language of film - how film conveys meaning and functions as a work of art. Other themes to be explored include how Hollywood functions as a business, reflects societal values and concerns, and responds to evolving technology. CSU, UC

FTVE-205 Introduction to Film and Media Arts

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course will examine major trends and genres in the world of film and media. Analysis of how plot, theme and character are developed in a visual medium and how the language and syntax of film conveys meaning as compared to media, literature and drama will be emphasized. The relationship of film and media to historical, social, and cultural trends will also be examined. Topics include modes of production, narrative and non-narrative forms, visual design, editing, sound, genre, ideology and critical analysis. CSU, UC (credit limits may apply to UC - see counselor)

FTVE-210 American Ethnic Cultures in Film

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

In this course, students will evaluate and explore various American cultures: African American, Native American, Asian American, Hispanic, and European American as represented in feature film. Emphasis is placed on the analysis of similarities and differences, paying particular attention to social and cultural representations. In addition, the course will introduce issues specific to the world of cinema such as how film language communicates ideas and stimulates emotional responses. Economic considerations that influence Hollywood distribution practices will also be covered. CSU, UC

FTVE-240 History of Broadcasting and Electronic Media

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course introduces the history, structure, function, economics, content and evolution of radio, television, film, the Internet, and new media, including traditional and mature formats. The social, political, regulatory, ethical and occupational impact of the electronic media are also studied. CSU, UC

FTVE-260 Ethnic Images in United States (U.S.) Television

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course will evaluate and explore various cultures represented in U.S. television: African American, American Indian, Asian American, Hispanic, and European American. It will examine the demographic, racial, political, and economic factors that determine the cultural diversity of programming and analyze similarities and differences in the way various cultures are portrayed. Issues specific to the world of television including broadcasting, cable, and streaming will be examined. The course will focus on how television communicates ideas and stimulates emotional responses, as well as the importance of Federal Communication Commission (FCC) regulations and marketing practices. CSU, UC

FTVE-280 American Cinema 1900-1950

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is a survey of major trends in American Cinema from 1900 to the demise of the studio system in the 1950s. Students will view films from notable artists and movements that have influenced the development of film arts around the world. In addition, students will analyze how social, economic, and historical forces shape film art, the development of global media culture, and how cinema communicates as an art form. CSU, UC

FTVE-281 World Cinema 1900-1960

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is a survey of major trends in World Cinema from 1900 to the French New Wave of the 1960s. Students will view films from notable artists and movements that have influenced the development of film arts around the world. In addition, students will analyze how social, economic, and historical forces shape film art, the development of global media culture, and how cinema communicates as an art form. CSU, UC (credit limits may apply to UC - see counselor)

FTVE-282 American Cinema 1950 to the Present

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is a survey of major trends in American Cinema from the demise of the studio system in the 1950's to the present. Students will view films from notable artists and movements that have influenced the development of film arts around the world. In addition, students will analyze how social, economic, and historical forces shape film art, the development of global media culture, and how cinema communicates as an art form. CSU, UC

FTVE-283 World Cinema 1960 to the Present

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course provides a survey of major trends in World Cinema since 1960 from French New Wave to the growth of Asian, Latin American, and Third-World cinema. The course methodology includes lectures and the viewing of key films from notable artists and movements that have influenced the development of film arts around the world. The social, economic, and historical forces that shape film art, as well as the development of global media culture and understanding how film communicates as an art form will be stressed. CSU, UC

FTVE-295 Occupational Work Experience Education in FTVE

1-4 units SC

- May be repeated three times
- Variable hours
- Note: In order to enroll in FTVE-295, students must be employed, register for the course, complete an online Employment Form, and participate in an orientation. Employment Form can be accessed at www.dvc.edu/wrkx. Incomplete grades are not awarded for this course.

FTVE-295 is supervised employment that extends classroom learning to the job site and relates to the student's chosen field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Five hours work per week or seventy-five hours work per term is equal to one unit. Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

FTVE-296 Internship in Occupational Work Experience Education in FTVE

- 1-4 units SC
- *May be repeated three times*
- *Variable hours*
- *Note: In order to enroll in the FTVE-296 course, students must be interning or volunteering, register for the course, complete an online Employment Form, and participate in an orientation. The Employment Form can be accessed at www.dvc.edu/wrwx. Incomplete grades are not awarded for this course.*

FTVE-296 is a supervised internship in a skilled or professional level assignment in the student's major field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Internships may be paid, non-paid, or some partial compensation provided. Five hours work per week or seventy-five hours work per term is equal to one unit (paid) or one unit for four hours work per week or sixty hours per term (unpaid work). Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

FTVE-298 Independent Study

- .5-3 units SC
- *Variable hours*
- *Note: Submission of acceptable educational contract to department and Instruction Office is required.*

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

FTVE-299 Student Instructional Assistant

- .5-3 units SC
- *Variable hours*
- *Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.*
- *Formerly BCA-299 and FILM-299*

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

FRENCH – FRNCH

Toni Fannin, Dean
Applied and Fine Arts
Business and Foreign Language Building, Room 204

Possible career opportunities

The study of French can open up opportunities in communications, foreign trade and banking, transportation, government, the Foreign Service, tourism, library services, teaching, professional translating, journalism, and all levels of education, including university teaching. Most foreign language careers require more than two years of study.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

**Associate in arts degree
French**

Students completing the program will be able to...

- communicate verbally in the target language with accurate pronunciation in meaningful situations present in both informal and formal contexts.
- effectively apply rules of grammar and syntax in tandem with appropriate vocabulary in written and oral communication.
- demonstrate auditory comprehension of instruction, authentic content, and purposeful conversations in the target language.
- discuss, describe, and infer information from authentic texts in the target language.
- demonstrate cultural appreciation by making (comparative) connections, on both an individual and societal level, between the target cultures and students' own cultures.
- create (write or present) narratives and/or arguments that demonstrate cohesive critical thinking in the target language.

The associate in arts degree in French at DVC will provide students with skills in understanding, speaking, reading and writing French. The curriculum exposes students to French culture and civilization and provides foundational skills in language that can apply to a broad range of international and domestic career opportunities and professions. The degree will provide lower division preparation for transfer to UC, CSU and other four year colleges and universities to earn a bachelor's degree.

The DVC French major is intended for transfer. Students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to baccalaureate-granting institutions of their choice are met. Students who intend to transfer are advised to select General Education Option 2 (IGETC) or Option 3 (CSU GE). Option 1 (DVC General Education) is appropriate for those students who do not intend to transfer. Students may not take a pass/no pass option for major courses and each of the major requirements must be completed with a “C” grade or higher. Certain courses may satisfy both major and general education requirements; however, the units are counted only once.

Students must complete at least 20 units from the list of core courses. The core courses provide students with the essential grammar of the language, culture and basic literature of the francophone world. Students who have no prior knowledge of French will complete the first four courses in the list for a total of 20 units. Students with prior knowledge of French may start at the second term level and take fifth and sixth terms to achieve a total of 21 units.

<i>complete a minimum of 20 units from:</i>	<i>units</i>
FRNCH-120 First Term French	5
FRNCH-121 Second Term French	5
FRNCH-220 Third Term French	5
FRNCH-221 Fourth Term French	5
FRNCH-230 Fifth Term French	3
FRNCH-231 Sixth Term French	3
total minimum units for the major	20

Certificate of achievement French

Students completing the program will be able to...

- A. communicate verbally in the target language with accurate pronunciation in meaningful situations present in both informal and formal contexts.
- B. effectively apply rules of grammar and syntax in tandem with appropriate vocabulary in written and oral communication.
- C. demonstrate auditory comprehension of instruction, authentic content, and purposeful conversations in the target language.
- D. discuss, describe, and infer information from authentic texts in the target language.
- E. demonstrate cultural appreciation by making (comparative) connections, on both an individual and societal level, between the target cultures and students’ own cultures.
- F. create (write or present) narratives and/or arguments that demonstrate cohesive critical thinking in the target language.

This certificate of achievement was created to give students the opportunity to show potential employers in this country and in other countries that the student has completed a certain number of courses in French and prepares students with an intermediate to advanced knowledge of French and familiarizes them with the culture of the Francophone world.

This certificate of achievement provides students, prospective employers and others with documented evidence of persistence and academic accomplishment in the language. The certificate requires completion of at least 13 units from one of the following lists of courses. Students may not take a credit/no credit option for required courses and each course must be completed with a “C” grade or higher.

<i>List A</i>	<i>units</i>
FRNCH-120 First Term French	5
FRNCH-121 Second Term French	5
FRNCH-220 Third Term French	5
FRNCH-221 Fourth Term French	5
FRNCH-230 Fifth Term French	3
FRNCH-231 Sixth Term French	3

<i>List B</i>	
FRNCH-121 Second Term French	5
FRNCH-155 First Term Conversational French	3
FRNCH-156 Second Term Conversational French	3
FRNCH-157 Third Term Conversational French	3
FRNCH-220 Third Term French	5
FRNCH-221 Fourth Term French	5
total minimum required units	13

FRNCH-120 First Term French

- 5 units SC
- 90 hours lecture per term
 - Note: This course is equivalent to two years of high school study.

This course provides an introduction to the French language and the culture of French-speaking countries. Topics include the four language skills: speaking, listening, reading, and writing. Emphasis is placed on active use of the language in class as well as basic communicative functions and structures. CSU, UC

FRNCH-121 Second Term French

- 5 units SC
- 90 hours lecture per term
 - Prerequisite: FRNCH-120 or two years of high school study or equivalent
 - Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.

This is the second course in a sequence of French language courses. The course continues skill building in understanding, speaking, reading, and writing of the French language. The expansion of vocabulary and more advanced communicative functions and structures, as well as a deeper examination of the cultures of French-speaking countries are emphasized. CSU, UC

FRNCH-150 Topics in French

- .3-4 units SC
- *Variable hours*

A supplemental course in French to provide a study of current concepts and problems in French and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

FRNCH-155 First Term Conversational French

- 3 units SC
- *54 hours lecture per term*
- *Note: This course does not satisfy major or general education requirements.*

This is the first term of the conversational French series. Basic grammar and vocabulary as well as an introduction to French culture will also be covered. CSU

FRNCH-156 Second Term Conversational French

- 3 units SC
- *54 hours lecture per term*
- *Recommended: FRNCH-155 or equivalent*
- *Note: This course does not satisfy major or general education requirements.*

This is the second term of the conversational French series. Emphasis will be placed on more advanced grammar and vocabulary to expand beyond the self to conversations of a more general nature. Comprehension will be reinforced through listening practice. CSU

FRNCH-157 Third Term Conversational French

- 3 units SC
- *54 hours lecture per term*
- *Recommended: FRNCH-156 or equivalent*
- *Note: This course does not satisfy major or general education requirements.*

This is a third term conversational French course designed to improve and refine speaking, listening, and comprehensive skills by reviewing and introducing target vocabulary and grammar. Topics will include social, political, and cultural issues as well as French culture. CSU

FRNCH-220 Third Term French

- 5 units SC
- *90 hours lecture per term*
- *Prerequisite: FRNCH-121 or three years of high school study or equivalent*
- *Note: Students may meet prerequisite in a variety of ways. Students should seek assistance at Admissions and Records.*

This is the third course in a sequence of French language courses. The course continues development of fluency in understanding, speaking, reading and writing French. All verbal tenses are reviewed, expanded and refined, and advanced grammar concepts, new vocabulary, and idiomatic expressions are introduced. Selected readings about the culture and literature of France and other French-speaking countries are explored. This course is taught entirely in French. CSU, UC

FRNCH-221 Fourth Term French

- 5 units SC
- *90 hours lecture per term*
- *Prerequisite: FRNCH-220 or four years of high school study or equivalent*
- *Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.*

Students will learn advanced grammar. Study of francophone literature in French with emphasis on the short story and poetry. Cultural study integrated into class discussions. Class conducted in French. CSU, UC

FRNCH-230 Fifth Term French

- 3 units SC
- *54 hours lecture per term*
- *Prerequisite: FRNCH-221 or equivalent*
- *Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.*

This is the fifth term advanced course emphasizing reading, writing (prioritizing the mechanics of academic writing), listening, and speaking skills. The rich heritage of French society and Francophone societies are explored through a wide range of materials including short stories, articles, poems, films, and documentaries. This course is taught entirely in French. CSU, UC

FRNCH-231 Sixth Term French

- 3 units SC
- *54 hours lecture per term*
- *Prerequisite: FRNCH-230 or equivalent*
- *Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.*

This is the sixth term advanced French language course strengthening reading, writing (prioritizing the mechanics of academic writing), listening, and speaking skills. Deepening the exploration of the rich heritage of French and Francophone societies through a wide range of materials including novels, articles, poems, films, documentaries, and dramas. This course is taught entirely in French. CSU, UC

FRNCH-298 Independent Study

- .5-3 units SC
- *Variable hours*
- *Note: Submission of acceptable educational contract to department and Instruction Office is required.*

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

FRNCH-299 Student Instructional Assistant

- .5-3 units SC
- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

GEOGRAPHY – GEOG

Joseph Gorga, Dean
 Physical Sciences and Engineering Division
 Physical Sciences Building, Room 263

Possible career opportunities

Geography is an interdisciplinary study focusing on the spatial relations of physical, cultural and economic systems of our world. As such, geographers are employed in a wide array of fields in many capacities such as: city/county planning; surveying; cartography; aerial photographic interpretation; remote sensing; environmental studies; meteorology; GIS (geographic information systems: and GPS (global positioning systems). Geographers are employed by private sector firms, government and non-profit organizations. Many career options may require more than two years of college study.

Cultural geography careers include geography education at many levels, analyst, consultant and planner. Most career options require more than two years of college study.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

**Associate in arts degree
 Social/cultural geography**

Students completing the program will be able to...

- A. describe the spatial organization of the world’s peoples, nations, cultural environments.
- B. compare and contrast the levels of economic development and their underlying environmental and cultural factors.
- C. demonstrate a global view with appreciation for diverse cultures and societies.
- D. demonstrate an understanding of how human activities impact the physical environment.

The social-cultural geography major at Diablo Valley College offers students the opportunity to prepare for a broad range of professions through the study of the spatial distribution of languages, religions and other aspects of human culture. Students will be prepared to transfer to UC, CSU and other four-year colleges and universities to earn a Bachelor’s degree. DVC prepares students to pursue careers in government, business, international relations and education.

The DVC social-cultural geography major consists of 18 units of required courses in which students develop an understanding of the origin, diffusion and spatial distribution of various attributes of human culture.

The DVC social-cultural geography major is intended for transfer. Students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to four-year institutions of their choice are met. Students who intend to transfer are advised to select General Education Option 2 (IGETC) or Option 3 (CSU GE). Option 1 (DVC General Education) is not generally advised.

To earn an associate in arts degree with a major in social-cultural geography, students must complete each course used to meet a major requirement with a “C” grade or higher, maintain an overall GPA of 2.5 or higher in the coursework required for the major, and complete general education requirements as listed in the catalog. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

<i>major requirements:</i>	<i>units</i>
ANTHR-130 Cultural Anthropology	3
GEOG-120 Physical Geography	3
GEOG-130 Cultural Geography	3
GEOG-135 World Regional Geography	3
GEOG-162 Map Design and Visualization.....	3
SOCIO-131 The Urban Community.....	3
total minimum units for the major	18

Associate in arts in geography for transfer

Students completing the program will be able to...

- A. describe the various components of the geosystems and explain how they interact.
- B. explain the interaction between physical and human components of the environment and how the nature of interaction varies in different parts of the world.
- C. describe the role and significance of geospatial techniques in assessing and mapping the physical and cultural environments.
- D. describe the characteristics of different cultural realms and demonstrate a respect for diversity that exists between and among cultural or geographic regions.

The associate in arts in geography for transfer is intended for students who plan to complete a bachelor’s degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

Geography

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education pattern (CSU GE); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Some courses in the major satisfy both major and CSU GE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

<i>major requirements:</i>		<i>units</i>
GEOG-120	Physical Geography	3
GEOG-121	Physical Geography Laboratory	1
GEOG-130	Cultural Geography	3

plus at least 6 units from:

GEOG-125	Introduction to Geographic Information Systems.....	3
GEOG-135	World Regional Geography.....	3
GEOG-140	Introduction to Weather	3

plus at least 6 units from any course not used above or:

ANTHR-130	Cultural Anthropology	3
GEOL-120	Physical Geology.....	3
GEOG-162	Map Design and Visualization.....	3
total minimum units for the major		19

Associate in science degree Geographic information systems/ Global positioning system

Students completing the program will be able to...

- analyze the inter-disciplinary applications of GIS, GPS, and remote sensing.
- synthesize data from various sources and different formats for spatial analyses.
- apply spatial tools and techniques in a research or work environment.
- explain the fundamentals of the different geospatial technologies and how they function.

The associate in science degree program in geographic information systems (GIS)/global positioning system (GPS) is designed to prepare students for entry into careers that employ generalized or specialized applications of GIS. GIS is a versatile and powerful technology that allows data input, data management, analysis and display of result within a single setup. Most local, state, and federal government agencies use GIS, as do businesses, planners, architects, foresters, geologists and a host of other occupations. Students learn technical and analytical skills for research as well as practical skills necessary to enter the job market and obtain positions with such titles as GIS technician, GIS specialist, GIS analyst, GIS programmer, GIS coordinator, GIS supervisor and GIS manager. To earn a degree, students must complete each course used to meet a major requirement with a "C" grade or higher and complete general education requirements as listed in the catalog. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

<i>major requirements:</i>		<i>units</i>
GEOG-125	Introduction to Geographic Information Systems (GIS).....	3
GEOG-126	Advanced Geographic Information Systems.....	3
GEOG-129	Field Data Acquisition and Management	3
GEOG-160	Introduction to Remote Sensing	4
GEOG-162	Map Design and Visualization.....	3

plus at least 6 units from:

COMSC-101	Computer Literacy	4
COMSC-110	Introduction to Programming.....	4
COMSC-120	SQL Programming	4
COMSC-172	UNIX and Linux Administration.....	2
COMSC-255	Programming with Java	4

plus at least 6 units from:

ANTHR-126	Introduction to Archeological Field Methods.....	3
BIOSC-126	Ecology and Field Biology	4
BIOSC-170	Environmental Science	3
ENGTC-126	Computer Aided Design and Drafting - AutoCAD.....	3
GEOG-120	Physical Geography	3
GEOG-124	Thinking and Communicating Geospatially.....	3
GEOG-295	Occupational Work Experience Education in GEOG	1-4
GEOL-120	Physical Geology.....	3
total minimum units for the major		28

Associate in science degree Meteorology

Students completing the program will be able to...

- describe the structure and properties of the atmosphere and atmospheric circulation systems.
- develop and explain a forecast in the short to medium time range.
- demonstrate the ability to apply atmospheric studies to interdisciplinary and practical applications for commercial and public needs.

The meteorology major at Diablo Valley College offers students the opportunity to prepare for a range of professions through the study of meteorology as an applied science. Students will be prepared to transfer to UC, CSU and other four-year colleges and universities to earn a baccalaureate degree. DVC prepares students to pursue careers in government, private forecasting and broadcast meteorology.

The DVC meteorology major consists of 18 units of required core courses through which students develop an understanding of the atmosphere, the physical principles governing weather, the spatial distribution of weather and how the atmosphere links to other components of earth's physical environment.

The DVC meteorology major is intended for transfer. Students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to four-year institutions of their choice are met. Students who intend to transfer are advised to select General Education Option 2 (IGETC) or Option 3 (CSU GE). Option 1 (DVC General Education) is not generally advised.

To earn an associate in science degree with a major in meteorology, students must complete each course used to meet a major requirement with a "C" grade or higher, maintain an overall GPA of 2.5 or higher in the coursework required for the major, and complete general education requirements as listed in the catalog. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

<i>major requirements:</i>	<i>units</i>
GEOG-120 Physical Geography	3
GEOG-121 Physical Geography Laboratory	1
GEOG-135 World Regional Geography	3
GEOG-140 Introduction to Weather	3
GEOG-141 Introduction to Weather Laboratory	1
GEOG-162 Map Design and Visualization.....	3
PHYS-120 General College Physics I.....	4
total minimum units for the major	18

Associate in science degree Physical geography

Students completing the program will be able to...

- A. demonstrate proficiency in the use of field data collection and mapping techniques.
- B. demonstrate an understanding of how the physical and human elements of the environment interact and what are the outcomes.
- C. demonstrate a grounding in the modern technical skills of the discipline, including computer cartography, geographic information systems and global positioning systems.

The physical geography major at Diablo Valley College offers students the opportunity to prepare for a range of professions through the study of a broad spectrum of courses related to the physical environment. Students will be prepared to transfer to UC, CSU and other four-year colleges and universities to earn a baccalaureate degree. DVC hones students' spatial and analytical skills while preparing them for careers in spatial technologies and environmental sciences.

The DVC physical geography major consists of 24 units of study. Students are required to take 14 units of core courses in which they develop an understanding of the physical environment and learn how to acquire, map and analyze spatial data relevant to the physical environment.

The DVC physical geography major is intended for transfer. Students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to four-year institutions of their choice are met. Students who intend to transfer are advised to select General Education Option 2 (IGETC) or Option 3 (CSU GE). Option 1 (DVC General Education) is not generally advised.

To earn an associate in science degree with a major in physical geography, students must complete each course used to meet a major requirement with a "C" grade or higher, maintain an overall GPA of 2.5 or higher in the coursework required for the major, and complete general education requirements as listed in the catalog. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

<i>major requirements:</i>	<i>units</i>
GEOG-120 Physical Geography	3
GEOG-121 Physical Geography Laboratory	1
GEOG-135 World Regional Geography	3
GEOG-140 Introduction to Weather	3
GEOG-141 Introduction to Weather Laboratory	1
GEOG-162 Map Design and Visualization.....	3

<i>plus at least 4 units from:</i>	
BIOSC-126 Ecology and Field Biology	4
GEOG-125 Introduction to Geographic Information Systems (GIS).....	3
GEOL-120 Physical Geology.....	3
GEOL-122 Physical Geology Laboratory.....	1
GEOL-125 Geology of California	3
total minimum units for the major	18

Certificate of achievement Geographic information systems/ Global positioning system

Students completing the program will be able to...

- A. analyze the inter-disciplinary applications of GIS, GPS, and remote sensing.
- B. synthesize data from various sources and different formats for spatial analyses.
- C. apply spatial tools and techniques in a research or work environment.
- D. explain the fundamentals of geospatial technologies and how they operate.

The geographic information systems (GIS)/global positioning system (GPS) program is designed to prepare students for entry into careers that employ generalized or specialized applications of GIS. GIS is a versatile and powerful technology that allows data input, data management, analysis and display of result within a single setup. Most local, state, and federal government agencies use GIS, as do businesses, planners, architects, foresters, geologists and a host of other occupations. Students learn technical and analytical skills for research as well as practical skills necessary to enter the job market and obtain positions with such titles as GIS technician, GIS specialist, GIS analyst, GIS programmer, GIS coordinator, GIS supervisor and GIS manager.

Geography

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Required courses are available in the evening and during the day.

<i>required courses:</i>		<i>units</i>
GEOG-125	Introduction to Geographic Information Systems (GIS).....	3
GEOG-126	Advanced Geographic Information Systems.....	3
GEOG-129	Field Data Acquisition and Management	3
GEOG-160	Introduction to Remote Sensing.....	4
GEOG-162	Map Design and Visualization.....	3

<i>plus at least 6 units from:</i>		
COMSC-101	Computer Literacy.....	4
COMSC-110	Introduction to Programming.....	4
COMSC-120	SQL Programming	4
COMSC-172	UNIX and Linux Administration.....	2
COMSC-255	Programming with Java	4

<i>plus at least 6 units from:</i>		
ANTHR-126	Introduction to Archeological Field Methods.....	3
BIOSC-126	Ecology and Field Biology	4
BIOSC-170	Environmental Science	3
ENGTC-126	Computer Aided Design and Drafting - AutoCAD.....	3
GEOG-120	Physical Geography	3
GEOG-124	Thinking and Communicating Geospatially.....	3
GEOG-295	Occupational Work Experience Education in GEOG	1-4
GEOL-120	Physical Geology.....	3
total minimum required units		28

Certificate of accomplishment Geographic information systems/ Global positioning system

Students completing the program will be able to...

- analyze the inter-disciplinary applications of GIS, GPS, and remote sensing.
- synthesize data from various sources and different formats for spatial analyses.
- apply spatial tools and techniques in a research or work environment.
- understand the fundamentals of geospatial technologies and how they function.

The geographic information systems (GIS)/global positioning system (GPS) program is designed to prepare students for entry into careers that employ generalized or specialized applications of GIS. GIS is a versatile and powerful technology that allows data input, data management, analysis and display of result within a single setup. Most local, state, and federal government agencies use GIS, as do businesses, planners, architects, foresters, geologists and a host of other occupations. Students learn technical and analytical skills for research as well as practical skills necessary to enter the job market and obtain positions with such titles as GIS technician, GIS specialist, GIS analyst, GIS programmer, GIS coordinator, GIS supervisor and GIS manager.

To earn a certificate of accomplishment, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Required courses are available in the evening and during the day.

<i>required courses:</i>		<i>units</i>
GEOG-125	Introduction to Geographic Information Systems (GIS).....	3
GEOG-126	Advanced Geographic Information Systems.....	3
GEOG-129	Field Data Acquisition and Management	3

<i>plus at least 3 units from:</i>		
ANTHR-126	Introduction to Archeological Field Methods	3
BIOSC-126	Ecology and Field Biology	4
BIOSC-170	Environmental Science	3
COMSC-120	SQL Programming	4
ENGTC-126	Computer Aided Design and Drafting - AutoCAD.....	3
GEOG-120	Physical Geography	3
GEOG-121	Physical Geography Laboratory	1
GEOG-124	Thinking and Communicating Geospatially....	3
GEOG-160	Introduction to Remote Sensing.....	4
GEOG-162	Map Design and Visualization.....	3
GEOG-295	Occupational Work Experience Education in GEOG	1-4
GEOG-298	Independent Study.....	0.5-3
GEOL-120	Physical Geology	3
GEOL-122	Physical Geology Laboratory	1

total minimum required units **12**

GEOG-120 Physical Geography

3 units SC

- 54 hours lecture per term
- *Recommended: MATH-090 or MATH-090E or MATH-090SP or one year of high school algebra or equivalent*

This course introduces the fundamental principles of physical geography. Focus is placed on providing an intelligent understanding of the Earth as the home of human beings and to show the interrelationships found within the physical environment. Quantitative reasoning, development of mathematical concepts and problem solving are emphasized. C-ID GEOG 110, CSU, UC

GEOG-121 Physical Geography Laboratory

1 unit SC

- 54 hours laboratory per term
- *Prerequisite: GEOG-120 or equivalent (may be taken concurrently)*

This course is the laboratory component for Physical Geography (GEOG-120). Emphasis is placed on using the skills and tools of modern physical geography and analyzing and interpreting geographic data. Topics include maps, aerial photographs, satellite images, weather instruments and computer analysis. C-ID GEOG 111, CSU, UC

GEOG-124 Thinking and Communicating Geospatially

- 3 units SC
 • 54 hours lecture per term

This course is designed to develop and promote critical thinking and understanding of spatial concepts, such as location, direction, movement, space and time, pattern and association through geographic information technologies. Students will compare, evaluate, and analyze how the techniques of GIS (Geographic Information Systems), GPS (Global Positioning Systems), RS (Remote Sensing), maps and cartography, mobile and online mapping are utilized for information gathering, resource management, problem solving, and decision making. CSU, UC

GEOG-125 Introduction to Geographic Information Systems (GIS)

- 3 units SC
 • 54 hours lecture/18 hours laboratory per term
 • Recommended: COMSC-101 or equivalent

This course provides an introduction to Geographic Information Systems (GIS) as a tool for spatial analysis. GIS concepts, techniques and methodologies are covered and laboratory activities are used to reinforce lecture concepts. The course provides preparation for advanced university level courses in spatial analysis or for entry level positions in GIS-related fields. C-ID GEOG 155, CSU, UC

GEOG-126 Advanced Geographic Information Systems

- 3 units SC
 • 54 hours lecture/18 hours laboratory per term
 • Prerequisite: GEOG-125 or equivalent

This course is an application of advanced analytical techniques of geographic information systems (GIS) to manipulate, analyze and predict spatial patterns. Students will work on individual projects to learn the issues involved in managing and representing spatial information. CSU

GEOG-129 Field Data Acquisition and Management

- 3 units SC
 • 54 hours lecture per term
 • Recommended: GEOG-124 or equivalent

This course covers the fundamentals of the Global Navigation Satellite System (GNSS) using the Global Positioning System (GPS), for data acquisition, management, and integration of data with Geographic Information Systems (GIS). Students will learn to design, implement, manage a field project, and export the information to a compatible GIS platform for advanced analyses. CSU

GEOG-130 Cultural Geography

- 3 units SC
 • 54 hours lecture per term
 • Recommended: Eligibility for ENGL-122 or equivalent

This course examines the nature and causes of the spatial distribution of human activity. Phenomena such as population, language, religion, popular culture, agricultural practices, political structure, economic organization, settlement patterns, resource exploration, and technological innovation are examined in order to understand the interactive relationship between human beings and their environment. C-ID GEOG 120, CSU, UC

GEOG-135 World Regional Geography

- 3 units SC
 • 54 hours lecture per term

This course is a geographic perspective of physical, cultural, political and economic characteristics of countries and regions of the world. Topics include a general survey of world place locations, influence of geographic factors on international cooperation and conflict, and a survey of the transformation of the cultural landscape of the United States. C-ID GEOG 125, CSU, UC

GEOG-140 Introduction to Weather

- 3 units SC
 • 54 hours lecture per term
 • Recommended: MATH-090 or equivalent

This introductory course in meteorology is both a descriptive and analytical course on the physical principles affecting the earth's weather. Topics covered include the nature of the atmosphere, solar energy, heat, temperature, pressure, stability, moisture, wind, storms, severe weather and forecasting. Climatology as a scientific study and the Earth's climatic history are introduced. The course will examine current research in climate modeling and global climate change. C-ID GEOG 130, CSU, UC

GEOG-141 Introduction to Weather Laboratory

- 1 unit SC
 • 54 hours laboratory per term
 • Co-requisite: GEOG-140 or equivalent (may be taken previously)
 • Recommended: MATH-090 or equivalent

This laboratory course is a supplement to GEOG-140. It includes coverage of fundamental concepts in meteorology and measurement techniques including selected mathematical concepts used to develop an understanding of weather and climate. Analysis of real-time weather data will be stressed. CSU, UC

GEOG-150 Topics in Geography

- .3-4 units LR
- Variable hours

A supplemental course in geography to provide a study of current concepts and problems in geography. Specific topics will be announced in the schedule of classes. CSU

GEOG-160 Introduction to Remote Sensing

- 3 units SC
- 36 hours lecture/54 hours laboratory per term
- Recommended: COMSC-101 or equivalent

This course introduces the basic principles of remote sensing techniques, including aerial photographs, satellite and LIDAR images. We teach techniques to collect data about the earth, how to interpret such data and how to map with the help of image processing software. CSU, UC

GEOG-162 Map Design and Visualization

- 3 units SC
- 36 hours lecture/54 hours laboratory per term
- Recommended: MATH-090 or MATH-090SP or MATH-090E or equivalent

This course introduces basic principles of mapping and representation of spatial data using conventional and computerized cartographic techniques and is designed to develop a better understanding of maps, map design, and map-interpretation. Elements of map such as scale, distance, direction, and map projections as well as cartographic techniques of data analysis, processing, visualization, and representation are examined in detail. CSU, UC

GEOG-165 Drone Remote Sensing and Mapping

- 3 units LR
- 36 hours lecture/54 hours laboratory per term

This course introduces Unmanned Aerial System (UAS) operations, data acquisition, and data processing techniques. Topics include UAS safety procedures, air space restrictions, flight mission planning, and data processing. Federal Aviation Administration (FAA) regulations and the requirements for obtaining UAS pilot certification are presented. The laboratory component of the course will offer students experience with UAS flight operations, data processing, and analysis. CSU

GEOG-295 Occupational Work Experience Education in GEOG

- 1-4 units SC
- May be repeated three times
- Variable hours
- Note: In order to enroll in GEOG-295, students must be employed, register for the course, complete an online Employment Form, and participate in an orientation. Employment Form can be accessed at www.dvc.edu/wrkx. Incomplete grades are not awarded for this course.

GEOG-295 is supervised employment that extends classroom learning to the job site and relates to the student's chosen field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Five hours work per week or seventy-five hours work per term is equal to one unit. Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

GEOG-298 Independent Study

- .5-3 units SC
- Variable hours
- Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

GEOG-299 Student Instructional Assistant

- .5-3 units SC
- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

GEOLOGY – GEOL

Joseph Gorga, Dean
Physical Sciences and Engineering Division
Physical Sciences Building, Room 263

Possible career opportunities

Geologists work in exploration for oil, natural gas, coal and uranium for energy, and for metals used in everyday life. They search for clean sources of groundwater for drinking and agriculture (hydrology). They seek to understand geologic hazards and how to mitigate them (seismology, flood and landslide control, and volcanology). They work to monitor and clean up pollutants in soil, groundwater and surface water. Currently, the best employment opportunities are in hydrology and pollution control. Many career options may require more than two years of college study.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in science degree Geology

Students completing the program will be able to...

- identify, describe, and classify earth materials, formations, and structures and interpret them in terms of geologic processes.
- synthesize information from a variety of physical science disciplines to solve geologic problems.
- develop and demonstrate analytical and critical thinking skills required for transfer into a four-year geologic science program.

The geology major at Diablo Valley College (DVC) prepares students to transfer to a University of California, California State University, or other baccalaureate-granting college or university to earn a bachelor's degree in geology or other earth science.

The geology major at DVC consists of at least 38 units of study, including 8 units of geology where students will learn the fundamentals of geologic science and gain hands-on experience in geology laboratories. In addition, students will complete a year of calculus courses, a year of chemistry courses, and a year of physics courses that are typically required for a bachelor's degree at baccalaureate-granting institutions. A list of electives including courses such as California Geology, Maps and Cartography, or Introduction to Field Geology allows the student to explore specific fields of greater interest.

The DVC geology major is intended for transfer. Students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to baccalaureate-granting institutions of their choice are met. Students who intend to transfer are advised to select General Education Option 2 (IGETC) or Option 3 (CSU GE). Option 1 (DVC General Education) is not generally advised.

To earn an associate in science degree with a major in geology, students must complete each course used to meet a major requirement with a "C" grade or higher and maintain an overall GPA of 2.5 or higher in the coursework required for the major. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

<i>Group 1: Core geology courses</i>		<i>units</i>
GEOL-120	Physical Geology.....	3
GEOL-121	Earth and Life Through Time	3
GEOL-122	Physical Geology Laboratory.....	1
GEOL-124	Earth and Life Through Time Laboratory	1

Group 2: Core mathematics courses

complete at least the first two courses (at least 10 units):

MATH-192	Analytic Geometry and Calculus I	5
MATH-193	Analytic Geometry and Calculus II	5
MATH-292	Analytic Geometry and Calculus III	5

Group 3: Core chemistry courses

complete 10 units from:

CHEM-120	General College Chemistry I.....	5
CHEM-121	General College Chemistry II.....	5

Group 4: Core physics courses

complete a minimum of two terms from one sequence (at least 8 units):

PHYS-130	Physics for Engineers and Scientists A: Mechanics and Wave Motion.....	4
PHYS-230	Physics for Engineers and Scientists B: Heat and Electro-Magnetism.....	4
PHYS-231	Physics for Engineers and Scientists C: Optics and Modern Physics.....	4
or		
PHYS-120	General College Physics I.....	4
PHYS-121	General College Physics II.....	4

Group 5: Electives

complete at least one course (2-4 units):

GEOG-125	Introduction to Geographic Information Systems (GIS).....	3
GEOG-160	Introduction to Remote Sensing.....	4
GEOG-162	Map Design and Visualization.....	3
GEOL-125	Geology of California	3
GEOL-135	Introduction to Field Geology	2

total minimum units for the major 36

Associate in science in geology for transfer

Students completing the program will be able to...

- A. identify, describe, and classify earth materials, formations, and structures and interpret them in terms of geologic processes.
- B. synthesize information from a variety of physical science disciplines to solve geologic problems.
- C. develop and demonstrate analytical and critical thinking skills required for transfer into a four-year geologic science program.

The associate in science in geology for transfer at Diablo Valley College (DVC) prepares students to transfer to a California State University (CSU) or other four-year college or university to earn a bachelor's of science degree in geology, geological science, or similarly named earth science field. In addition, the course work prepares students for a wide range of professional opportunities across many scientific disciplines.

The associate in science in geology for transfer consists of 28 units of study, including eight units of geology where students will learn the fundamentals of geologic science and gain hands-on experience in geology laboratories. In addition, students will complete a year of calculus courses and a year of chemistry courses. Though not specifically required by this transfer major, it is highly recommended that students also take a year of physics courses that are typically required for a bachelor's degree at four-year institutions.

The associate in science in geology for transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education pattern (CSU GE); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Some courses in the major satisfy both major and CSU GE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

<i>major requirements:</i>		<i>units</i>
CHEM-120	General College Chemistry I.....	5
CHEM-121	General College Chemistry II.....	5
GEOL-120	Physical Geology.....	3
GEOL-121	Earth and Life Through Time	3
GEOL-122	Physical Geology Laboratory.....	1
GEOL-124	Earth and Life Through Time Laboratory	1
MATH 192	Analytic Geometry and Calculus I	5
MATH 193	Analytic Geometry and Calculus II	5
total minimum units for the major		28

GEOL-120 Physical Geology

- 3 units SC
- 54 hours lecture per term
 - Recommended: MATH-090 or MATH-090E or MATH-090SP or one year of high school algebra and eligibility for ENGL-122 or equivalents

This is a general course in geologic science that encompasses nearly all phases of geology. Students will gain an appreciation and understanding of the fundamental processes that have changed, and are presently changing, the Earth's crust. The recognition of common minerals, rocks and landscape features of the Earth will be included. Students will practice quantitative reasoning and mathematical concepts. C-ID GEOL 100, CSU, UC

GEOL-121 Earth and Life Through Time

- 3 units LR
- 54 hours lecture per term
 - Recommended: GEOL-120, GEOL-122 or equivalent

This course introduces the history of the Earth from its beginning to the present. Topics included are the origin of the Earth, the development of plant and animal life, and the physical changes in the Earth that have led to the features that are observed today. C-ID GEOL 110, CSU, UC

GEOL-122 Physical Geology Laboratory

- 1 unit SC
- 54 hours laboratory per term
 - Co-requisite: GEOL-120 (may be taken previously) or equivalent
 - Recommended: MATH-090 or MATH-090E or MATH-090SP or one year of high school algebra or equivalent
 - Note: Field trips may be included in the course

This course is the laboratory component to Physical Geology (GEOL-120). Topics include the description and identification of minerals and all types of rocks, studies of topographic and geologic maps, as well as the internal structure of the earth using cross-sections. Laboratory studies of earthquakes, tectonic activity, and surficial features of the earth are included. C-ID GEOL 100L, CSU, UC

GEOL-124 Earth and Life Through Time Laboratory

1 unit LR

- 54 hours laboratory per term
- Prerequisite: GEOL-121 or equivalent (may be taken concurrently)

This course is the laboratory component to Earth and Life Through Time (GEOL-121) and focuses on the techniques of historical geological investigations. Laboratory activities include identification and interpretation of the basic rocks and minerals that make up the earth, as well as recognition and classification of common types of fossils. Topics include geologic dating, plate tectonics, stratigraphy, fossils, biological evolution, the planet's origin and the processes that have influenced paleogeography during the past 4.6 billion years. C-ID GEOL 110L, CSU, UC

GEOL-125 Geology of California

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is designed to familiarize students with the varied geological, topographical and geographical aspects of California. This will include a general study of the provinces of California, the major rock types and their occurrence, the major earthquake faults and their frequency of activity, and the general geologic history. Mineral and petroleum resources of the state will be discussed. C-ID GEOL 200, CSU, UC

GEOL-130 Earth Science

4 units LR

- 54 hours lecture/54 hours laboratory per term
- Recommended: MATH-090 or MATH-090E or MATH-090SP or one year of high school algebra and eligibility for ENGL-122 or equivalents

This course introduces the essentials of earth science including the geosphere, atmosphere, hydrosphere, and solar system. The interactions between physical and chemical systems of the Earth such as the tectonic cycle, rock cycle, hydrologic cycle, weather and climate are explored. C-ID GEOL 121, CSU, UC

GEOL-135 Introduction to Field Geology

2 units LR

- 18 hours lecture/54 hours laboratory per term
- Prerequisite: GEOL-120 and GEOL-122 or equivalents
- Note: Field trips are definitely required. Most trips are to local parks or open spaces and students are responsible for their own transportation to and from these required components.

A course in general field methods of geologic science. The course is designed to provide students with the basic skills required to collect geologic data in the field and the skills necessary for constructing simple geologic maps. Types of fieldwork will include compass and orienteering work, measurement of rock features and descriptions of outcrops, as well as identification and mapping of geologic contacts. Geologic field work can be strenuous; students should expect to walk off trail over rough terrain carrying their own equipment. We will work through rain or shine; only seriously inclement weather will suspend work. CSU, UC

GEOL-298 Independent Study

.5-3 units SC

- Variable hours
- Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

GEOL-299 Student Instructional Assistant

.5-3 units SC

- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

GERMAN – GRMAN

Toni Fannin, Dean

Applied and Fine Arts Division

Business and Foreign Language Building, Room 204

Possible career opportunities

The study of German can open up opportunities in communications, foreign trade and banking, transportation, government, the Foreign Service, tourism, library services, teaching, professional translating, journalism, and all levels of education, including university teaching. Most foreign language careers require more than two years of study.

Program learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in arts degree

German

Students completing the program will be able to...

- A. communicate verbally in the target language with accurate pronunciation in meaningful situation present in both informal and formal contexts.
- B. effectively apply rules of grammar and syntax in tandem with appropriate vocabulary in written and oral communication.
- C. demonstrate auditory comprehension of instruction, authentic content, and purposeful conversations in the target language.
- D. discuss, describe, and infer information from authentic texts in the target language.
- E. demonstrate cultural appreciation by making (comparative) connections, on both an individual and societal level, between the target cultures and students' own culture.
- F. create (write or present) narratives and/or arguments that demonstrate cohesive critical thinking in the target language.

The associate in arts degree in German at DVC will provide students with skills in understanding, speaking, reading and writing German. It also gives students a greater understanding of German culture and civilization and will prepare them for a broad range of international and domestic career opportunities and professions. The degree will also provide students the opportunity to transfer to UC, CSU and other four-year colleges and universities to earn a bachelor's degree.

The DVC German major is intended for transfer. Students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to baccalaureate-granting institutions of their choice are met. Students who intend to transfer are advised to select General Education Option 2 (IGETC) or Option 3 (CSUGE). Option 1 (DVC General Education) is appropriate for those students who do not intend to transfer. Students may not take a credit/no credit option for major courses and each of the major requirements must be completed with a "C" grade or higher. Certain courses may satisfy both a major and a general education requirement; however, the units are counted only once.

To earn an associate in arts degree in German, students must complete 20 units from the list of major requirements, which will provide students with the essential grammar of the language, culture and basic literature of the German-speaking countries. Students with no previous knowledge of German when entering DVC will take the first four courses in the list for a total of 20 units. If students enter the program with previous knowledge of German, they may start at the second term level and take fifth and sixth terms to achieve a total of 21 units.

<i>complete at least 20 units from:</i>		<i>units</i>
GRMAN-120	First Term German	5
GRMAN-121	Second Term German	5
GRMAN-220	Third Term German	5
GRMAN-221	Fourth Term German.....	5
GRMAN-230	Fifth Term German	3
GRMAN-231	Sixth Term German	3
total minimum units for the major		20

**Certificate of achievement
German**

Students completing the program will be able to...

- A. communicate verbally in the target language with accurate pronunciation in meaningful situations present in both informal and formal contexts.
- B. effectively apply rules of grammar and syntax in tandem with appropriate vocabulary in written and oral communication.
- C. demonstrate auditory comprehension of instruction, authentic content, and purposeful conversations in the target language.
- D. discuss, describe, and infer information from authentic texts in the target language.
- E. demonstrate cultural appreciation by making (comparative) connections, on both an individual and societal level, between the target cultures and students' own cultures.
- F. create (write or present) narratives and/or arguments that demonstrate cohesive critical thinking in the target language.

This certificate of achievement was created to give students the opportunity to show potential employers in this country and in other countries that the student has completed a certain number of courses in German and prepares students with an intermediate to advanced knowledge of German and familiarizes them with the culture of the German-speaking world.

This certificate of achievement provides students, prospective employers and others with documented evidence of persistence and academic accomplishment in the language. The certificate requires completion of at least 13 units from the following list of courses. Students may not take a credit/no credit option for required courses and each course must be completed with a "C" grade or higher.

<i>complete at least 13 units from:</i>		<i>units</i>
GRMAN-120	First Term German	5
GRMAN-121	Second Term German.....	5
GRMAN-220	Third Term German	5
GRMAN-221	Fourth Term German.....	5
GRMAN-230	Fifth Term German	3
GRMAN-231	Sixth Term German	3
total minimum required units		13

GRMAN-120 First Term German

5 units SC

- 90 hours lecture per term
- Note: This course is equivalent to two years of high school study.

This course provides an introduction to the German language and the culture of German-speaking countries. Topics include the four language skills: speaking, listening, reading, and writing. Emphasis is placed on active use of the language in class as well as basic communicative functions and structures. CSU, UC

GRMAN-121 Second Term German

5 units SC

- 90 hours lecture per term
- Prerequisite: GRMAN-120 or two years of high school study or equivalent
- Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.

This is the second course in a sequence of German language courses. The course continues skill building in understanding, speaking, reading, and writing of the German language. The expansion of vocabulary and more advanced communicative functions and structures, as well as a deeper examination of the cultures of German-speaking countries are emphasized. CSU, UC

GRMAN-150 Topics in German

.3-4 units SC

- Variable hours

A supplemental course in German to provide a study of current concepts and problems in German and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

GRMAN-220 Third Term German

5 units SC

- 90 hours lecture per term
- Prerequisite: GRMAN-121 or three years of high school study or equivalent
- Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.

This is a course in intermediate German. Students will expand conversation skills with emphasis on speaking more fluently and with assurance. A grammar review and development of reading and writing skills will also be presented. Short stories, video, and audio programs provide a rich basis for conversation, discussion, and cultural insights. CSU, UC

GRMAN-221 Fourth Term German

5 units SC

- 90 hours lecture per term
- Prerequisite: GRMAN-220 or four years of high school study or equivalent
- Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.

This intermediate course is a continuation of GRMAN-220 and includes completion of a grammar review and exposure to the finer points of the language, such as particles and when and how to use indirect discourse. The video program exposes the student to many aspects of life in Austria, Germany, and Switzerland, including the various accents of the native speakers. CSU, UC

GRMAN-230 Fifth Term German

3 units SC

- 54 hours lecture per term
- Prerequisite: GRMAN-221 or equivalent
- Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.

This is the fifth term advanced German language course emphasizing reading, writing (prioritizing the mechanics of academic writing), listening, and speaking skills. The rich German heritage is explored through a wide range of materials including short stories, articles, poems, films, and documentaries. This course is taught almost entirely in German. CSU, UC

GRMAN-231 Sixth Term German

3 units SC

- 54 hours lecture per term
- Prerequisite: GRMAN-230 or equivalent
- Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.

This is the sixth term advanced German language course strengthening reading, writing (prioritizing the mechanics of academic writing), listening, and speaking skills. The exploration of the rich German heritage is deepened through a wide range of materials including novels, articles, poems, films, documentaries, and dramas. This course is taught almost entirely in German. CSU, UC

GRMAN-299 Student Instructional Assistant

.5-3 units SC

- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

HEALTH SCIENCE – HSCI

Diablo Valley College is approved by the California Board of Registered Nurses for continuing education credits (provider #CEP 7992) Health Science courses which can be used are HSCI-124, 140, 164 and 170.

Joseph Gorga, Dean
 Biological and Health Sciences Division
 Physical Sciences Building, Room 263

Possible career opportunities

A health science graduate may work in federal, state or county health agencies, community clinics, voluntary health agencies and hospitals, insurance or pharmaceutical companies.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in science degree Health education

Students completing the program will be able to...

- A. apply a multi-dimensional approach to health that incorporates the study of social, behavioral and physiological sciences.
- B. identify risk factors for disease and disability.
- C. analyze the psychological, physical, social, sexual, and environmental influences on health and wellness.
- D. demonstrate behavior-changing techniques to maximize health and wellness.
- E. evaluate information and its sources by articulating and applying fundamental evaluation and selection criteria.

The associate in science degree in health education exposes the student to a multi-dimensional approach to health by incorporating the study of social, behavioral and physiological sciences. Students will learn about individual and social-cultural risk factors for disease and disability and be taught behavior-changing skills and public health strategies to improve quality and quantity of life, all of which have broad applications in fields that teach health education such as academic, community, corporate, and/or medical. The course of study also provides a broad foundation in health sciences for those students who want to pursue specialized occupations in the public health profession.

Students may apply the knowledge to work areas, such as workplace wellness, hospital health education center, state or university health center, health club, and/or government and public health agencies that focus on improving individual and societal health. Students wishing to pursue a career in the field of health education should consider this two-year program as it satisfies the general education and/or elective requirements necessary to transfer, and will prepare students for a bachelor's of science (B.S.) degree program in the field of public health science.

DVC health education students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to four-year institutions of their choice are met. Students who intend to transfer are advised to select either General Education Option 2 (IGETC) or Option 3 (CSU GE). General Education Option 1 (DVC General Education) is appropriate for students who do not intend to transfer.

To earn an associate in science degree with a major in health education, students must complete each course used to meet a major requirement with a "C" grade or higher and complete general education requirements as listed in the catalog. Degree requirements can be completed by attending classes in the day, the evening, or both. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

<i>major requirements:</i>		<i>units</i>
HSCI-124	Health and Wellness.....	3
HSCI-130	Introduction to Public Health	3

<i>plus at least 4 units from:</i>		
BIOSC-102	Fundamentals of Biological Science with Laboratory	4
BIOSC-117	Human Biology with Laboratory	4
BIOSC-119	Fundamentals of Microbiology	4
BIOSC-139	Human Anatomy.....	5
BIOSC-140	Human Physiology	5
BIOSC-146	Principles of Microbiology	5

<i>plus at least 3 units from:</i>		
HSCI-127	Drugs, Health and Society	3
HSCI-135	Health and Social Justice	3
HSCI-140	Human Sexuality	3
HSCI-164	Health and Healing Systems: Cross-Cultural Perspectives.....	3
HSCI-170	Women's Health	3
HSCI-298	Independent Study.....	3
NUTRI-160	Nutrition: Science and Applications	3

<i>plus at least 6 units from any course not used above, or:</i>		
BUS-240	Business Statistics.....	3
or		
MATH-142	Elementary Statistics with Probability	4
or		
MATH-144	Statway II.....	4
CHEM-108	Introduction to Chemistry	4
PSYCH-101	Introduction to Psychology	3
or		
SOCIO-120	Introduction to Sociology.....	3

total minimum units for the major 19

Associate in science in public health science for transfer

Students completing the program will be able to...

- identify the basic concepts and terminologies of the public health discipline.
- access credible public health information from various local, state and national public health organizations and agencies.
- analyze of the social determinants of health and strategies for eliminating disease, illness and health disparities among various populations.
- demonstrate the steps of community organizing and health promotion programming.
- develop the preliminary skills to serve as an effective advocate for community/public health.

The associate in science in public health science for transfer degree is primarily intended for students who plan to complete a bachelor's degree at a California State University (CSU) in areas of study such as health science, health science with health education option, health science with public health option, health science with community health option, health science with health promotion and disease prevention, health education, public health, public health promotion, kinesiology with health education, kinesiology with health science option, kinesiology with health and wellness promotion, kinesiology with health promotion and disease prevention, and collaborative health and human services with community health option. Students completing this degree are guaranteed admission to the CSU system, but not necessarily to a particular major or campus.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education pattern (CSU GE); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system, or those students who do not intend to transfer.

Students must complete each course used to meet a major requirement with a "C" grade or higher. Some courses in the major satisfy both major and CSUGE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

<i>major requirements:</i>	<i>units</i>
BIOSC-101 Fundamentals of Biological Science	3
or	
BIOSC-102 Fundamentals of Biological Science with Laboratory	4
BIOSC-139 Human Anatomy.....	5
BIOSC-140 Human Physiology	5
BUS-240 Business Statistics.....	3
or	
MATH-142 Elementary Statistics with Probability.....	4
CHEM-108 Introductory Chemistry	4
or	
CHEM-120 General College Chemistry I.....	5
HSCI-124 Health and Wellness.....	3
HSCI-130 Introduction to Public Health	3
PSYCH-101 Introduction to Psychology	3

plus at least 3 units from:

ECON-220 Principles of Macroeconomics	3
ECON-221 Principles of Microeconomics	3
HSCI-127 Drugs, Health and Society	3
HSCI-135 Health and Social Justice	3
HSCI-140 Human Sexuality	3
NUTRI-160 Nutrition: Science and Applications	3
SOCIO-120 Introduction to Sociology.....	3

total minimum units for the major 33

Diablo Valley College is approved by the California Board of Registered Nurses for continuing education credits (provider #CEP 7992) Health Science courses which can be used are HSCI-124, 140, 164 and 170

HSCI-100 Introduction to Health Care Careers

3 units SC

- 54 hours lecture per term
- Note: Credit by examination available.

This course provides an overview of health care careers and their respective career paths, educational and skill requirements and professional responsibilities. Basic skills required by health-related careers such as emphasizing personal attributes, demonstrating professionalism, engaging in teamwork, and building communication skills will be covered. This course is designed to assist students in making educational and career decisions for a wide spectrum of health care occupations. CSU

HSCI-124 Health and Wellness

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: The nutrition, tobacco and substance abuse components of this course fulfill a portion of the state health education requirements for a teaching credential. For CPR training see HSCI-131.

This course focuses on the exploration of major health issues and behaviors in the various dimensions of health. Emphasis is placed on individual responsibility for personal health and the promotion of informed, positive health behaviors. Topics include (but not limited to) nutrition, exercise, weight control, mental health, stress management, violence, substance abuse, reproductive health, disease prevention, aging, healthcare, and environmental hazards and safety. C-ID PHS 100, CSU, UC (credit limits may apply to UC - see counselor)

HSCI-126 Stress Management and Health

3 units SC

- 54 hours lecture per term
- Recommended: ENGL-116/118 or equivalent

This course will examine the theoretical frameworks of stress and common stress management techniques. Topics of study will include defining stress, understanding physiological theories of stress, defining sources and causes of stress, and examining health consequences of chronic stress. Students will examine and analyze numerous strategies to manage and cope with stress such as: time management, relaxation techniques, communication skills, diet and exercise. CSU

HSCI-127 Drugs, Health and Society

3 units SC

- 54 hours lecture per term
- Recommended: ENGL-116/118 or equivalent

This course introduces concepts, theories, epidemiology and toxicology of substance abuse and its relevance to personal and public health. The biological, psychological and social effects of drug use on the health of individuals and on society is emphasized. Concepts such as substance use versus misuse, abuse and dependence; risk factors; signs and symptoms; mental illnesses; treatments; and prevention theories associated with addiction will be covered. The pharmacological classification of psychoactive substances, illicit and licit, and their neurological and physiological effects on the human brain will be explored. An extensive analysis of health statistics identifying trends of usage, dependency, and the controversies around the social, political, and economic factors related to the legal and illegal distribution, marketing and government regulation of drugs is also covered. Current options for recovery and local resources will be reviewed. C-ID PHS 103, CSU, UC (credit limits may apply to UC - see counselor)

HSCI-128 Medical Terminology

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents terminology relevant to many allied health care fields. The construction, pronunciation, spelling, definition and common usage for all medical terms in anatomy, physiology, pathology and health care will be covered. CSU

HSCI-130 Introduction to Public Health

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course introduces students to the discipline of Public/Community Health. Areas of emphasis include the basic concepts and terminologies of public health; an overview of various public health professions and organizations; the study, prevention and control of diseases in the community including the analysis of the social determinants of health and strategies for eliminating disease, illness and health disparities among various populations; community organizing and health promotion programming; environmental health and safety; and an overview of the healthcare delivery system in the U.S. Emphasis will be placed on the development of knowledge and preliminary skills to serve as an effective advocate for community/public health. C-ID PHS 101, CSU, UC

HSCI-131 Cardiopulmonary Resuscitation (CPR)

.5 unit SC

- 9 hours lecture/3 hours laboratory per term
- Recommended: ENGL-116/118 or equivalent

This course introduces lifesaving skills used in respiratory and cardiac emergencies and re-certifies students who have already attained Cardio Pulmonary Resuscitation (CPR) certification. CSU

HSCI-135 Health and Social Justice

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course provides an introduction to the health inequities in the United States that stem from unequal living conditions. Students will explore how education, socioeconomic status, racism and gender shape health epidemics and policy development. Fundamental theories to advocate for health and social justice will be presented. C-ID PHS 102, CSU, UC

HSCI-137 Cultural Competence in Health and Social Service

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course examines the political, social, and theoretical perspectives of diverse populations as they relate to health and social services settings. The impact of health status, lifestyle and behavioral patterns, communication styles, socioeconomic status, personal prejudices, ethnic stereotyping, and cultural beliefs on individual and group access to health and social services will be investigated. Emphasis is placed on developing effective strategies to use with diverse populations as well as evaluating the effectiveness of existing health and social service programs. CSU

HSCI-140 Human Sexuality

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

During the course of the semester students will explore and discuss several issues relating to human sexuality from a biological, psychological, social, cross-cultural and research-based perspective. Topics include reproductive anatomy and sexual response, intimate relationships and communication, gender, contraception, reproduction, sexual orientation, sexually transmitted infections, sexual dysfunctions, paraphilia behaviors, violent behaviors, cultural differences, sex in the media including the effects of pornography, the sexual marketplace, and sexual development through the lifespan. This course will attempt to empower students with the skills necessary to take control of their own sexual health decisions and behaviors. C-ID PSY 130, CSU, UC

HSCI-150 Topics in Health Science

.3-4 units SC

- Variable hours
- Recommended: Eligibility for ENGL-122 or equivalent

A supplemental course in health science to provide a study of current concepts and problems in health science. Specific topics will be announced in the schedule of classes. CSU

HSCI-164 Health and Healing Systems: Cross-Cultural Perspectives

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Continuing Education Units (CEUs) for nurses

This course examines health, disease, healing and medicine from an interdisciplinary perspective. Concepts and philosophies from traditional cultural healing systems and contemporary Western medicine will be examined from psychological, sociological, biological, historical and cultural perspectives. Topics covered include the history of Western medical thought, principles of indigenous healing systems, the role of gender in healing, the effects of personality and emotions on health and disease, and integrative medicine. CSU, UC

HSCI-170 Women's Health

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

An exploration of the biological, sociopolitical, and psychological aspects of women's health and medical care in contemporary society. The course examines contemporary issues of women's health with emphasis on the politicization of the social, physical, emotional, intellectual, and environmental components of health. CSU, UC (credit limits may apply to UC - see counselor)

HSCI-230 Advanced First Aid/CPR

3 units SC

- 54 hours lecture per term
- Note: Continuing Education Units (CEUs) for nurses

This advanced course involves the theory and detailed demonstration of the first aid care of the injured. The student will learn to assess a victim's condition and incorporate proper treatment. Standard first aid, cardio-pulmonary resuscitation (CPR), and automatic external defibrillator (AED) certification(s) will be granted upon successful completion of requirements. This course is appropriate training for medical professionals. C-ID KIN 101, CSU, UC

HSCI-296 Internship in Occupational Work Experience Education in HSCI

1-4 units SC

- May be repeated three times
- Variable hours
- Note: In order to enroll in the HSCI-296 course, students must be interning or volunteering, register for the course, complete an online Employment Form, and participate in an orientation. The Employment Form can be accessed at www.dvc.edu/wrkk. Incomplete grades are not awarded for this course.

HSCI-296 is a supervised internship in a skilled or professional level assignment in the student's major field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Internships may be paid, non-paid, or some partial compensation provided. Five hours work per week or seventy-five hours work per term is equal to one unit (paid) or one unit for four hours work per week or sixty hours per term (unpaid work). Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

HSCI-298 Independent Study

- .5-3 units SC
- Variable hours
- Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

HSCI-299 Student Instructional Assistant

- .5-3 units SC
- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

Associate in science degree Heating, ventilation, air conditioning, and refrigeration (HVACR)

Students completing the program will be able to...

- A. analyze the electrical parts of the refrigeration system.
- B. differentiate between many types of motor.
- C. distinguish between mechanical and electrical controls.
- D. demonstrate basic control design that have applications to the HVACR industry.
- E. identify the different types of controllers for the HVACR industry.
- F. use oral and written communication skills in the HVACR industry.

In collaboration with Plumbers-Steamfitters-Refrigeration Union Local 342 www.ua342.org, DVC currently offers three five-year apprenticeship programs: steamfitting, plumbing, and HVACR. Apprenticeship is training that is designed to prepare an individual for a career in the skilled crafts and trades. Apprentices develop technical skills, experience the sharing of assignments and see how technical tasks relate specifically with theoretical knowledge and interpretation. Apprentices earn a wage while learning. Enrollment in this program is restricted. You must be registered as an apprentice with the State of California to participate in the program and accepted into the apprenticeship program by our union partners.

While completing their HVACR apprenticeship, DVC students can earn awards at three levels of completion: a certificate of accomplishment, a certificate of achievement, and an associate in science degree. To earn an associate in science degree with a major in HVACR, students must complete 20 out of 31 core courses to meet their individual educational and career goals. In addition they must complete 18 general education units. Students must complete each course used to meet a major requirement with a "C" grade or higher and maintain an overall GPA of 2.5 or higher in the coursework required for the major.

major requirements: units

complete at least 30 units from:

HVACR-110	Electrical Theory I	1.5
HVACR-111	Mechanical Refrigeration Theory.....	1.5
HVACR-112	Electrical Theory II.....	1.5
HVACR-113	The Refrigeration Cycle	1.5
HVACR-114	Intermediate Electrical I	1.5
HVACR-115	Intermediate Mechanical Refrigeration I.....	1.5
HVACR-116	Intermediate Electrical II	1.5
HVACR-117	Intermediate Mechanical Refrigeration II.....	1.5
HVACR-118	Electrical Troubleshooting I	1.5
HVACR-119	Electrical Troubleshooting II.....	1.5
HVACR-120	Introduction to Direct Digital Controls.....	1.5
HVACR-121	Introduction to Variable Frequency Drives	1.5
HVACR-122	Introduction to Market Refrigeration Systems ..	1.5
HVACR-123	Introduction to Pneumatic Controls.....	1.5
HVACR-124	Introduction to Boilers.....	1.5
HVACR-125	Advanced Compressor and Motor Theory.....	1.5
HVACR-126	Start Test Balance: Water Side I	1.5
HVACR-127	Start Test Balance: Air Side I	1.5
HVACR-128	Start Test Balance: Water Side II	1.5
HVACR-129	Start Test Balance: Air Side II	1.5

total units for the major 30

HEATING, VENTILATION, AIR CONDITIONING, REFRIGERATION - HVACR

Joseph Gorga, Dean
Physical Sciences and Engineering Division
Physical Sciences Building, Room 263

Possible career opportunities

Upon successful completion of the Heating Ventilation Air Conditioning and Refrigeration (HVACR) program, students will have the necessary knowledge and skills for a career in residential, commercial, or industrial HVACR, including careers as Heating and Air Conditioning Mechanics and Installers and as Refrigeration Mechanics and Installers. Program content includes an introduction to the electrical and mechanical principles used in air conditioning and refrigeration, including meters, circuits, contactors, relays, thermostats, pressure switches, motors, overloads, controls, and boilers. Reading and drawing of schematic diagrams, troubleshooting, and safe electrical practices are also covered.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

**Certificate of achievement
Heating ventilation air conditioning and
refrigeration (HVACR)**

Students completing the program will be able to...

- A. compare a number of basic principles and laws of electricity as they relate to in AC refrigeration.
- B. analyze the electrical parts of the refrigeration system.
- C. differentiate between many types of motor.
- D. distinguish between mechanical and electrical controls.
- E. demonstrate basic control design that have applications to the HVACR industry.
- F. identify the different types of controllers for the HVACR industry

In collaboration with Plumbers-Steamfitters-Refrigeration Union Local 342 www.ua342.org, DVC currently offers three five-year apprenticeship programs: steamfitting, plumbing, and HVACR. Apprenticeship is training that is designed to prepare an individual for a career in the skilled crafts and trades. Apprentices develop technical skills, experience the sharing of assignments and see how technical tasks relate specifically with theoretical knowledge and interpretation. Apprentices earn a wage while learning. Enrollment in this program is restricted. You must be registered as an apprentice with the State of California to participate in the program and accepted into the apprenticeship program by our union partners.

While completing their HVACR apprenticeship, DVC students can earn awards at three levels of completion: a certificate of accomplishment, a certificate of achievement, and an associate in science degree. To earn a certificate of achievement, students must complete 14 out of 18 core courses. Students must complete each course used to meet a major requirement with a "C" grade or higher and maintain an overall GPA of 2.5 or higher in the coursework required for the certificate. The courses required for the certificate of achievement also meet some of the requirements of the major for the associate in science degree.

<i>required courses:</i>	<i>units</i>
<i>complete at least 21 units from:</i>	
HVACR-112 Electrical Theory II.....	1.5
HVACR-113 The Refrigeration Cycle	1.5
HVACR-114 Intermediate Electrical I	1.5
HVACR-115 Intermediate Mechanical Refrigeration I.....	1.5
HVACR-116 Intermediate Electrical II	1.5
HVACR-117 Intermediate Mechanical Refrigeration II.....	1.5
HVACR-118 Electrical Troubleshooting I	1.5
HVACR-119 Electrical Troubleshooting II.....	1.5
HVACR-120 Introduction to Direct Digital Controls.....	1.5
HVACR-121 Introduction to Variable Frequency Drives	1.5
HVACR-122 Introduction to Market Refrigeration Systems.....	1.5
HVACR-123 Introduction to Pneumatic Controls.....	1.5
HVACR-124 Introduction to Boilers.....	1.5
HVACR-125 Advanced Compressor and Motor Theory.....	1.5
HVACR-126 Start Test Balance: Water Side I.....	1.5
HVACR-127 Start Test Balance: Air Side I.....	1.5
HVACR-128 Start Test Balance: Water Side II.....	1.5
HVACR-129 Start Test Balance: Air Side II.....	1.5
total minimum required units	21

**Certificate of accomplishment
Heating ventilation air conditioning and
refrigeration (HVACR)**

Students completing the program will be able to...

- A. identify tools and equipment, used in the industry.
- B. demonstrate general safety practices.
- C. compare a number of basic principles and laws of electricity as they relate to AC refrigeration.
- D. analyze the electrical parts of the refrigeration system.
- E. differentiate between many types of motor.
- F. distinguish between mechanical and electrical controls.

In collaboration with Plumbers-Steamfitters-Refrigeration Union Local 342 www.ua342.org, DVC currently offers three five-year apprenticeship programs: steamfitting, plumbing, and HVACR. Apprenticeship is training that is designed to prepare an individual for a career in the skilled crafts and trades. Apprentices develop technical skills, experience the sharing of assignments and see how technical tasks relate specifically with theoretical knowledge and interpretation. Apprentices earn a wage while learning. Enrollment in this program is restricted. You must be registered as an apprentice with the State of California to participate in the program and accepted into the apprenticeship program by our union partners.

While completing their HVACR apprenticeship, DVC students can earn awards at three levels of completion: a certificate of accomplishment, a certificate of achievement, and an associate in science degree. To earn a certificate of accomplishment, students must complete five out of seven core courses. Students must complete each course used to meet a major requirement with a "C" grade or higher and maintain an overall GPA of 2.5 or higher in the coursework required for the certificate. The courses required for the certificate of accomplishment also meet some of the requirements of the certificate of achievement and major for the associate in science degree.

<i>required courses:</i>	<i>units</i>
<i>complete at least 7.5 units from:</i>	
HVACR-110 Electrical Theory I.....	1.5
HVACR-111 Mechanical Refrigeration Theory.....	1.5
HVACR-112 Electrical Theory II	1.5
HVACR-113 The Refrigeration Cycle.....	1.5
HVACR-114 Intermediate Electrical I.....	1.5
HVACR-115 Intermediate Mechanical Refrigeration I.....	1.5
HVACR-116 Intermediate Electrical II.....	1.5
total minimum required units	7.5

HVACR-110 Electrical Theory I

1.5 units LR

- 18 hours lecture/36 hours laboratory per term
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course introduces concepts of electrical principles used in air conditioning and refrigeration. Topics include meters, circuits, contactors, relays, thermostats, pressure switches, motors, overloads, circuitry and troubleshooting. Kirchhoffs Law, and Ohms Law. Safety topics for the Heating Ventilation Air Conditioning and Refrigeration (HVACR) industry will also be covered.

HVACR-111 Mechanical Refrigeration Theory

1.5 units LR

- 18 hours lecture/36 hours laboratory per term
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course presents the study of the design, assembly, and operation of compression systems. Topics include basic liquid and vapor control and metering devices as well as the design and construction of system piping including techniques of leak detection, dehydration of systems, charging methods, recovery and troubleshooting. In addition, safety, torch techniques, cutting, fitting, and brazing of various copper projects will be explored. Further, the techniques for isometric drawing and pipe symbols for soldering and brazing will be practiced.

HVACR-112 Electrical Theory II

1.5 units LR

- 18 hours lecture/36 hours laboratory per term
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course presents advanced concepts of electrical principles used in air conditioning and refrigeration. Topics include installation of heating, cooling, and refrigeration systems; basic electric motors and their components; contactors, relays, and overloads; thermostats, pressure switches, common electrical components used on a schematic, and other electric control devices; heating control devices; and troubleshooting.

HVACR-113 The Refrigeration Cycle

1.5 units LR

- 18 hours lecture/36 hours laboratory per term
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course covers the design, assembly and operation of refrigeration compression systems. Topics include charging, recovery, recycling, and reclamation; installation of heat pumps, safety procedures, leak testing and troubleshooting.

HVACR-114 Intermediate Electrical I

1.5 units LR

- 18 hours lecture/36 hours laboratory per term
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course introduces basic series and parallel circuits related to air conditioning (AC) and refrigeration. Motors, relays, contactors, thermostats, pressure switches and overloads will be examined and wired. Emphasis will be placed on electrical circuit troubleshooting.

HVACR-115 Intermediate Mechanical Refrigeration I

1.5 units LR

- 18 hours lecture/36 hours laboratory per term
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course covers components and applications of refrigeration systems; electric, gas, oil, and alternative (stoves, fire-place inserts, and solar) heating; indoor air quality, comfort and psychometrics; and refrigeration applied to air conditioning.

HVACR-116 Intermediate Electrical II

1.5 units LR

- 18 hours lecture/36 hours laboratory per term
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course presents continued study of series and parallel circuits related to complex air conditioning (AC) and refrigeration systems. Advanced applications for motors, relays, contactors, thermostats, magnetic starters, pressure switches and overloads are examined and wired. Emphasis will be placed on electrical circuit troubleshooting.

HVACR-117 Intermediate Mechanical Refrigeration II

1.5 units LR

- 18 hours lecture/36 hours laboratory per term
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course presents the practical and theoretical aspects of heating, air conditioning, and refrigeration (HVACR). Topics include gas controls, gas ignition systems, gas furnace troubleshooting and safety.

HVACR-118 Electrical Troubleshooting I

1.5 units LR

- 18 hours lecture/36 hours laboratory per term
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course will cover advanced electrical controls with special emphasis on troubleshooting and repair. Topics include proportional controls, economizers and variable air volume (VAV) controls and motors. Safety procedures will be stressed.

HVACR-119 Electrical Troubleshooting II

1.5 units LR

- 18 hours lecture/36 hours laboratory per term
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course presents additional topics in advanced electrical controls with emphasis on troubleshooting and repair. Topics include proportional, open/closed transition, pump, fans, economizers, and variable air volume (VAV) controls, as well as motor starting techniques including variable frequency drives (VFD). Safety procedures are also emphasized.

HVACR-120 Introduction to Direct Digital Controls

1.5 units LR

- 18 hours lecture/36 hours laboratory per term
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course will cover direct digital controls (DDC) as they apply to the heating, air conditioning and refrigeration industry. Techniques to troubleshoot and diagnose hardware and software problems with DDC systems will be presented. The course includes hands-on wiring, testing, and programming of typical components found in the industry. Basic programming languages and pneumatic actuators to better understand the internal operation of the system will also be introduced.

HVACR-121 Introduction to Variable Frequency Drives

1.5 units LR

- 18 hours lecture/36 hours laboratory per term
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course provides an introduction to variable frequency drives (VFD's), applications of use, and limited troubleshooting. Parameterization for start up, open loop, closed loop, floating point, and preset speed profiles will be covered.

HVACR-122 Introduction to Market Refrigeration Systems

1.5 units LR

- 18 hours lecture/36 hours laboratory per term
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course covers refrigeration equipment, cases, defrost methods, timers, control devices, oil float systems, and heat reclaim controls. Topics will include print reading, wiring and piping diagrams, and refrigeration schedule in a typical market setting. Operation and location of compressors, evaporators, condensers, refrigerated cases, walk-ins, heat reclaim, and connecting paraphernalia will also be presented.

HVACR-123 Introduction to Pneumatic Controls

1.5 units LR

- 18 hours lecture/36 hours laboratory per term
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course presents the operation of direct and reverse acting controls, air compressors, sizing of valves and dampers, thermostats, auxiliary devices, transmitters, pneumatic and receiver controllers.

HVACR-124 Introduction to Boilers

1.5 units LR

- 18 hours lecture/36 hours laboratory per term
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course covers the components and operation of boiler systems used in hotels, apartment buildings, schools, and other large institutions. A comprehensive overview of the safe and efficient operation of high pressure boilers and related equipment is provided, including the latest combustion control technology, and Environmental Protection Agency (EPA) regulations and their implications. This course is designed to prepare students for licensing examinations.

HVACR-125 Advanced Compressor and Motor Theory

- 1.5 units LR
- 18 hours lecture/36 hours laboratory per term
 - Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

The course presents reciprocating compressor disassembly and assembly. Topics include compressor function, safety, troubleshooting, alignment, and performance. Unloaders, oils, electrical, refrigerant gas, starters, and start-up procedures will also be explored.

HVACR-126 Start Test Balance: Water Side I

- 1.5 units LR
- 18 hours lecture/36 hours laboratory per term
 - Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course introduces the basic principles of air and water flow. The Mollier Diagram will be used to apply these principles to air conditioning and refrigeration.

HVACR-127 Start Test Balance: Air Side I

- 1.5 units LR
- 18 hours lecture/36 hours laboratory per term
 - Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course provides an overview of commercial air conditioning systems operations. Topics include direct expansion (DX) and chiller systems, fan types, pumps, boiler controls, related systems, and service methods. The use and application of heat load equations, charts, and procedures is introduced.

HVACR-128 Start Test Balance: Water Side II

- 1.5 units LR
- 18 hours lecture/36 hours laboratory per term
 - Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course describes proper procedures for start, test, and balance of air conditioning systems utilizing principles of air and water flow. Topics include sizing of refrigerant piping for liquid, the benefits of psychrometrics on human comfort, fan laws, air movement, pumps, piping, evaporative cooling, and air and water measurement.

HVACR-129 Start Test Balance: Air Side II

- 1.5 units LR
- 18 hours lecture/36 hours laboratory per term
 - Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course provides an overview of commercial air conditioning systems emphasizing air distribution, heat flow, and service methods. Students will also investigate air measurement and the impact of duct design on air distribution.

HISTORY – HIST

Obed Vazquez, Dean
Social Sciences Division
Faculty Office Building, Room 136

Possible career opportunities

The study of history contributes to cultural literacy, developing critical thinking and other useful skills for a broad range of careers, including education, public service and law. Most career options require more than two years of college study.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in arts in history for transfer

Students completing the program will be able to...

- understand and value the importance of diverse perspectives in history.
- analyze the causes and the effects of historical events.
- apply critical thinking strategies to better understand and explain why historical events occurred and how those events affected various populations.
- evaluate, using critical thinking strategies, how interpretations of historical events can be disputed.

The associate in arts in history for transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education pattern (CSU GE); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of “C” or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor’s degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Some courses in the major satisfy both major and CSU GE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

<i>major requirements:</i>	<i>units</i>
HIST-120 History of the United States before 1865	3
HIST-121 History of the United States after 1865	3

plus at least 3 units from:

HIST-140 History of Western Civilization to the Renaissance	3
HIST-180 World History to 1500	3

plus at least 3 units from:

HIST-141 History of Western Civilization since the Renaissance	3
HIST-181 World History since 1500	3

plus at least 3 units from:

<i>any course not used above, or:</i>	<i>units</i>
HIST-124 History of California.....	3
HIST-125 History of the United States: A Mexican American Perspective	3
HIST-126 The American West	3
HIST-127 African American Perspective History of the US to 1865.....	3
HIST-128 African American Perspective History of the US after 1865.....	3
HIST-129 History of Asians and Pacific Islanders in the United States.....	3
HIST-135 History of Latin America-The Colonial Period	3
HIST-136 History of Latin America-The National Period.....	3
HIST-150 History of East Asia (to 1600).....	3
HIST-151 History of East Asia (from 1600- Present)	3
HIST-170 History of Women in the United States before 1877.....	3
HIST-171 History of Women in the United States after 1865	3

plus at least 3 units from:

any course not used above, or:

HIST-122 Critical Reasoning in History	3
HIST-142 Contemporary European History	3

total minimum units for the major

18

HIST-120 History of the United States before 1865

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents a multicultural history of the United States before 1865. Students will explore social, political, cultural and economic experiences and contributions of African American, Asian American, European American, Latino/a American, and Native American men and women in the development of United States society. The origins, nature, and impact of the U.S. Constitution on United States history before 1865 including the political philosophies of the framers, the operation of political institutions, and the rights and obligations of citizens will also be covered. C-ID HIST 130, CSU, UC

HIST-121 History of the United States after 1865

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents a multicultural history of the United States from 1865 to present. Students will explore social, political, cultural, and economic factors in the development of United States’ society. Topics will include the operation and the continuing evolution of local, state and federal governments under the U.S. and California constitutions and the experiences of groups from diverse backgrounds such as European Americans, Asian Americans, African Americans, Native Americans and Latino/a Americans. The growing international role of the United States from the late nineteenth century to the present will also be examined. C-ID HIST 140, CSU, UC

HIST-122 Critical Reasoning in History

3 units SC

- 54 hours lecture per term
- Prerequisite: ENGL-122 or equivalent

This course presents the processes of questioning, analyzing, and evaluating oral and written ideas, concepts, and interpretations of the past. The principles of inductive and deductive reasoning are applied to examine historical viewpoints, gather and organize historical information, recognize historical relationships and patterns, and assess the relevance of history to current events and issues. CSU, UC

HIST-124 History of California

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is a survey of the history of California from pre-conquest to the present. The course highlights California Constitutions, the formation and growth of state and local governments, and the unique social, political, economic and cultural forces that spurred the development of modern California. Topics will include the role of Native Americans, immigration, geography, war, and natural resources in the formation of a vibrant and multicultural California. CSU, UC

HIST-125 History of the United States: A Mexican American Perspective

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents an overview of United States (U.S.) history from 1848 to the present with an emphasis on the role of peoples of Mexican-origin -- both immigrants and U.S. born. History from social, political, economic, and cultural perspectives will be examined. The contributions of Mexican-origin people to the multicultural development of contemporary American society, including their interaction with other Latino communities, as well as people of European, African, Asian, and Native descent are emphasized. The impact of U.S. attitudes and policies on peoples of Mexican-origin will also be addressed. CSU, UC

HIST-126 The American West

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course surveys the movement of the American people from the Atlantic seaboard across North America and into the Pacific, including the history of western half of the current United States of America. Focusing on the Westward Movement during the nineteenth century, this course examines the historical experience from a social, political, economic, and cultural perspective into the present. The role of the diverse ethnic and racial communities of the West and their interaction with one another, their contributions to the construction of the American national character, and the experience of the West as a moving borderland with other nations, societies and cultures will also be emphasized. CSU, UC

HIST-127 African American Perspective History of the US to 1865

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents a survey of the history of the United States from the perspective of African Americans and compares the African experience with the experiences of Europeans, Native Americans, Asian Americans and Latinos. Early African presence in the Americas, the trade in African slaves, and explore political, economic, demographic and cultural influences shaping African American life and culture prior to 1865 will be examined. The U.S. government and the Constitution, the California government and Constitution, and other constitutional models for comparison and contrast will also be covered. CSU, UC

HIST-128 African American Perspective History of the US after 1865

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents a survey of the history of the United States from the perspective of African Americans and compares the African American experience with that of Native peoples, Europeans, Asian Americans and Hispanics/Latinos after 1865. The course explores the economic, cultural, institutional, political history of African Americans from the post-Civil War period to the present. The African American relationship with national, California state and local governments will also be covered. CSU, UC

HIST-129 History of Asians and Pacific Islanders in the United States

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course provides a comparative analysis of Asian American History from 1848 to the present. Topics include an exploration of Asian American perspectives; immigration and settlement patterns; labor, legal, political and social history. A comparative historical approach, placing Asian immigration within the context of global interdependence and inequality, frames the course materials. This course will examine migration theories and patterns, the politics and policies of U.S. immigration, resettlement patterns, and the reconstruction of identities and social networks. The three periods of Asian Immigration: Before World War II; during and after World War II and the Cold War; and after 1965 to the present will be explored. CSU, UC

HIST-135 History of Latin America - The Colonial Period

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course introduces the student to the history of colonial Latin America from 1492 through the European conquest, the creation of new empires, and the subsequent fall of the latter in the first two decades of the 19th century. Students will examine how geography, the encounter between pre-Columbian cultures and Spanish/Portuguese colonialism, the introduction of African slavery, and the movements for independence shaped Latin America and its inhabitants. The connections of past and present in the Latin American world including early Latin-American history from pre-Columbian indigenous cultures through the early nineteenth century independence movements will also be explored. CSU, UC

HIST-136 History of Latin America - The National Period

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course surveys the history of Latin America during the National Period (from independence to the present), considering the legacies of conquest and 300 years of Spanish colonialism. Latin American political, economic, social and cultural development from the 19th to 21st centuries is examined using specific countries and regions as case studies. How geography, the encounter between pre-Columbian cultures and Spanish/Portuguese colonialism, the introduction of African slavery, and the movements for independence shaped Latin America and its inhabitants is also explored. CSU, UC

HIST-140 History of Western Civilization to the Renaissance

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents the history of modern civilization from the ancient world to the Renaissance (circa 1500). Political, economic, social, cultural, and intellectual developments and relationships in the western world are examined. C-ID HIST 170, CSU, UC

HIST-141 History of Western Civilization since the Renaissance

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents the history of western civilization from the 17th century to the present time. Emphasis will be placed on how the structures and outlook of modern civilization emerged, by tracing political, economic, social, cultural, and intellectual developments from late medieval to contemporary times. The development of modern Europe will also be explored. C-ID HIST 180, CSU, UC

HIST-142 Contemporary European History

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is a study of political, social, economic and cultural developments in recent European history from the late 19th century to the present. Students will examine the influence of Europe in international events in recent history. Emphasis is placed on the impact of ideologies, the origins of wars, the ongoing effects of conflict, and progress toward coexistence. The impact of United States foreign policy in twentieth century Europe will be explored, as will the important process of decolonization and the European Union. CSU, UC

HIST-150 History of East Asia (to 1600)

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course offers a history of East Asia, with emphasis on China and Japan, from pre-historical times to the beginning of the 17th century. CSU, UC

HIST-151 History of East Asia (from 1600 - Present)

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents the history of East Asia, from the 17th century to the present with emphasis on China and Japan. The history of Korea and Vietnam will also be considered. CSU, UC

HIST-155 Topics in History

.3-4 units SC

- Variable hours

A supplemental course in history to provide a study of current concepts and problems in history and related substantive areas. Specific topics will be announced in the schedule of classes. CSU

HIST-170 History of Women in the United States before 1877

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is a survey of United States history before 1877, with an emphasis on women's life experiences within the context of broader historical change. We will examine the commonalities of women's experiences and explore the impacts of race, law, ethnicity, class, and region on women's lives. This course also explores how women both fostered and were affected by social, political, economic, legal and cultural transformations in the United States. The impact of the U.S. and California Constitutions on women's life experiences and the activities of federal, state, and local governments will also be assessed. CSU, UC

HIST-171 History of Women in the United States after 1865

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course is a survey of United States history, after 1865 to present, emphasizing women's life experiences within the context of larger historical changes. Students will examine the commonalities of women's experiences and explore the impacts of race, class, gender and region on women's lives. This course will explore how women fostered and were affected by social, political, economic, and cultural transformations in the United States. The impact of the U.S. and California Constitutions and the activities of federal, state, and local governments on the experiences of women will also be covered. CSU, UC

HIST-180 World History to 1500

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course presents a broad survey of world history, emphasizing the dynamic interaction of cultures and peoples and the broad patterns of global history to 1500 CE. This course examines the key social, political, economic, cultural, and intellectual forces that shaped the major world civilizations. While the legacy of these major civilizations will be emphasized, less influential societies are also examined for perspective. C-ID HIST 150, CSU, UC

HIST-181 World History since 1500

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course surveys world history from 1500 CE to the present, with an emphasis on the dynamic interaction of cultures and societies around the globe. The course considers the social, political, economic, cultural, and intellectual forces that shaped the major societies and less influential ones. The course examines the legacy of these forces worldwide and their contributions to present-day circumstances, including on going tensions between tradition and modernity. Specifically, it transcends nationalist versions of history to connect the histories of people worldwide through the methodology of World History. C-ID HIST 160, CSU, UC

HIST-298 Independent Study

- .5-3 units SC
- Variable hours
 - Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

HIST-299 Student Instructional Assistant

- .5-3 units SC
- Variable hours
 - Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

HORTICULTURE – HORT

Joseph Gorga, Dean
Biological and Health Sciences Division
Physical Sciences Building, Room 263

Possible career opportunities

The horticulture program prepares students for numerous state licenses and industry certificates. State licenses include landscape contractor and pest control operator. Industry certifications include: nursery person, arborist, landscape technician, maintenance technician, and irrigation designer. Career choices in horticulture include: nursery technician, propagator, plant breeder, nursery manager, greenhouse grower, greenhouse manager, garden center manager, arborist/tree worker, landscape architect, landscape designer, grounds manager/municipal, landscape contractor, landscape maintenance contractor, golf course manager, and pest controller/advisor. Some career options may require more than two year of college work.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Certificate of achievement

Arboriculture

Students completing the program will be able to...

- identify commonly planted trees in local landscapes.
- use dichotomous keys to correctly identify tree species.
- use site analysis data to determine appropriate tree species.
- explain how trees should be planted, staked, pruned, and irrigated.
- identify common insect pests and disease pathogens of common trees.
- assess tree health and recognize potential hazards.
- interpret local tree ordinance regulations for county residents.
- describe tree selection mistakes.
- demonstrate techniques to mitigate tree pruning errors.

This certificate of achievement prepares students for employment as arborists in a variety of settings including public and private gardens, parks, golf courses, institutions, municipalities, utilities, government agencies, and commercial and residential tree care services. It includes classroom, laboratory, and work experience/internships. Completion of the certificate requirements will also prepare students to sit for the International Society of Arboriculture (ISA) certification.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Required courses are available in the evening and/or on weekends.

<i>required courses:</i>	<i>units</i>
HORT-110 Introduction to Horticulture.....	4
HORT-120 Soil Science and Management.....	3
HORT-125 Integrated Pest Management.....	3.5
HORT-170 Woody Plants: Identification and Maintenance.....	4
HORT-171 Pruning Laboratory.....	1
HORT-179 Arboriculture.....	4
HORT 185 Site Analysis.....	1.5
HORT-187 Sustainable Water Practices.....	3

plus at least 2 units from:

HORT-296 Internship Occupational Work Experience Education in HORT.....	1-4
total minimum required units	26

Certificate of achievement Landscape design

Students completing the program will be able to...

- A. develop fundamental designer and client communication techniques.
- B. perform a site analysis and inventory.
- C. recognize and develop a personal landscape design process.
- D. create presentations through graphic sketching and drafting.
- E. identify plant and non-plant material suitable for specific site design.
- F. produce a portfolio and related documents necessary to enter the marketplace

This certificate presents the fundamental skills used by landscape designers. Using hand-drawing and digital tools, students will develop designs based upon environments typical of residential and small commercial landscape sites. Through portfolio development and presentations, students will emulate the industry practice of designer/client interaction.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Required courses are available in the evening and/or on weekends.

<i>required courses:</i>	<i>units</i>
HORT-110 Introduction to Horticulture.....	4
HORT-120 Soil Science and Management.....	3
HORT-180 Introduction to Landscape Architecture.....	3
HORT-181 Landscape Design I: Graphics.....	3
HORT-182 Landscape Design II.....	3
HORT-185 Site Analysis.....	1.5
HORT-187 Sustainable Water Management.....	3

plus at least 3 units from:

HORT-113 Plant Materials and their Uses: Winter and Spring.....	3
HORT-114 Plant Materials and their Uses: Summer and Fall.....	3

plus at least 3 units from:

ARCHI-135 Digital Tools for Design.....	3
ARCHI-136 Digital Tools for Architecture.....	3
total minimum required units	26.5

Certificate of achievement Nursery and greenhouse

Students completing the program will be able to...

- A. identify, alleviate, and recommend treatment for diseases and pathogens.
- B. describe specific environmental and cultural requirements to grow seasonal common plants.
- C. select plants based on analysis of a specific landscape setting.
- D. maintain and support nursery operations.
- E. describe and differentiate among physical and growth characteristics of common seasonal plants.
- F. group plants according to water needs (zoning).
- G. implement safety and procedures.

This certificate provides the skills needed to work in the local nursery industry including plant identification, plant propagation, labeling, nursery sales, marketing and nursery management. The program includes lectures, laboratory, and work experience.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Required courses are available in the evening and/or on weekends.

<i>required courses:</i>	<i>units</i>
HORT-110 Introduction to Horticulture and Plant Science.....	4
HORT-113 Plant Materials and their Uses: Winter and Spring.....	3
HORT-114 Plant Materials and their Uses: Summer and Fall.....	3
HORT-163 Nursery and Greenhouse Practices: Summer/Fall.....	3
HORT-183 Garden Design.....	1.5
HORT-185 Site Analysis.....	1.5
HORT-187 Sustainable Water Management.....	3

Horticulture

plus at least 2 units from:

HORT-296	Internship in Occupational Work Experience Education in HORT.....	1-4
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plus at least 3 units from:

HORT-111	Plant Propagation and Production: Winter and Spring	3
HORT-112	Plant Propagation and Production: Summer and Fall	3
total minimum required units		24

Certificate of achievement Plant science and horticulture

Students completing the program will be able to...

- integrate the knowledge of higher plant functions with site analysis
- describe local geographical features and their relationship to soils.
- select appropriate plants for specific environmental conditions.
- apply appropriate plant pruning techniques.
- demonstrate proper use of botanical nomenclature.
- identify exotic and native woody plants.
- explain the effects of temperature, water, humidity, and fertility on winter and spring plant growth,
- apply learned skills to gardens.

This certificate program is designed to prepare students with the skills, knowledge, and training to enter into local green industry jobs in fields such as landscape installation, maintenance, park service, plant propagation, nursery, and remediation. The certificate provides a strong foundation for students who intend to pursue a baccalaureate degree in horticulture, plant science, and agriculture majors.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Required courses are available evenings and/or weekends.

<i>required courses:</i>		<i>units</i>
HORT-110	Introduction to Horticulture and Plant Science	4
HORT-120	Soil Science and Management.....	3
HORT-121	Soil Science and Management Laboratory	1
HORT-171	Pruning Laboratory	1
HORT-187	Sustainable Water Management.....	3

plus at least 2 units from:

HORT-296	Internship in Occupational Work Experience Education in HORT	1-4
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plus at least 3 units from:

HORT-113	Plant Materials and their Uses: Winter and Spring	3
HORT-114	Plant Materials and their Uses: Summer and Fall	3

plus at least 4 units from:

CONST-135	Construction Processes: Residential	4
HORT-170	Woody Plants: Identification and Maintenance.....	4

plus at least 3 units from:

HORT-111	Plant Propagation and Production: Winter and Spring	3
HORT-112	Plant Propagation and Production: Summer and Fall	3

total minimum required units 24

Certificate of accomplishment Horticulture technician

Students completing the program will be able to...

- integrate the knowledge of higher plant functions with site analysis.
- describe local geographical features and their relationship to soils.
- describe the relationship between plants, soil and water.
- evaluate plant pruning needs.

This certificate introduces students to the comprehensive field of plant science and horticulture, the green industry. Green industry professionals are responsible for nurturing and protecting our natural resources and integrating them into the built environment. This foundational certificate can lead to further study in the fields of landscape installation, maintenance, park service, plant propagation, nursery, and remediation.

To earn a certificate of accomplishment, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Required courses are available evenings and/or weekends.

<i>required courses:</i>		<i>units</i>
HORT-110	Introduction to Horticulture and Plant Science	4
HORT-120	Soil Science and Management.....	3
HORT-171	Pruning Laboratory	1
HORT-187	Sustainable Water Management.....	3

total minimum required units 11

Certificate of accomplishment Landscape design fundamentals

Students completing the program will be able to...

- apply principles of planting design theory to landscape design projects.
- prepare rendered documents for presentation.
- prepare professional level planting plans and schedules, estimating quantity and sizes of plants required.

This certificate incorporates the basic principles of site analysis, plant science, and soil science as applied to landscape design principles. Students are prepared for entry-level positions in the landscape industry focusing on residential settings and small commercial sites.

To earn a certificate of accomplishment, students must complete each course used to meet a certificate requirement with a “C” grade or higher. Required courses are available evenings and/or weekends.

<i>required courses:</i>	<i>units</i>
HORT-110 Introduction to Horticulture and Plant Science	4
HORT-181 Landscape Design I: Graphics	3
HORT-185 Site Analysis	1.5
 <i>plus at least 3 units from:</i>	
HORT-113 Plant Materials and their Uses: Winter and Spring	3
HORT-114 Plant Materials and their Uses: Summer and Fall	3
total minimum required units	11.5

**Certificate of accomplishment
Nursery technician**

Students completing the program will be able to...

- A. identify, alleviate and recommend treatment for diseases and pathogens.
- B. describe specific environmental and cultural requirements to grow seasonal common plants.
- C. maintain and support nursery operations.

This certificate provides the fundamental skills required for entry-level employment in the nursery industry. It includes classroom and hands-on laboratory experiences.

To earn a certificate of accomplishment, students must complete each course used to meet a certificate requirement with a “C” grade or higher. Required courses are available in the evening and/or on weekends.

<i>required courses:</i>	<i>units</i>
HORT-110 Introduction to Horticulture and Plant Science	4
HORT-163 Nursery and Greenhouse Practices: Summer/Fall	3
 <i>plus at least 3 units from:</i>	
HORT-111 Plant Propagation and Production: Winter and Spring	3
HORT-112 Plant Propagation and Production: Summer and Fall	3
total minimum required units	10

**Certificate of accomplishment
Tree technician**

Students completing the program will be able to...

- A. implement tree trimming safety procedures.
- B. use field examinations to determine tree problems.
- C. diagnose woody plant suitability for given sites.
- D. recognize species and the characteristics of a given species.

This program prepares students for employment as assistant tree trimmers, pruners, or fallers working under certified arborists

To earn a certificate of accomplishment, students must complete each course used to meet a certificate requirement with a “C” grade or higher. Required courses are available evenings and/or on weekends.

<i>required courses:</i>	<i>units</i>
HORT-110 Introduction to Horticulture and Plant Science	4
HORT-170 Woody Plants: Identification and Maintenance	4
HORT-171 Pruning Laboratory	1
HORT-179 Arboriculture	4
total minimum required units	13

HORT-110 Introduction to Horticulture and Plant Science

- 4 units SC
- 54 hours lecture/54 hours laboratory per term
- Recommended: CHEM-106, MATH-090, and Eligibility for ENGL-122 or equivalents

This course provides an introduction to plant sciences as related to horticulture. Topics include plant morphology, growth processes, propagation, physiology, growth media, biological competitors, and post-harvest factors of food, fiber, ornamental and native plants. CID AG-PS 106L, CSU, UC

HORT-111 Plant Propagation and Production: Winter and Spring

- 3 units SC
- 36 hours lecture/54 hours laboratory per term
- Prerequisite: HORT-110 (may be taken concurrently) or equivalent
- Recommended: HORT-125 or equivalent

This course introduces plant propagation and production practices for nursery operations, with an emphasis on sexual and asexual reproduction of winter and spring plants. Topics include winter and spring planting specifications, transplanting, fertilizing, plant pest and disease control; structures and site layout; preparation and use of propagating and planting mediums; use and maintenance of common tools and equipment; regulations pertaining to plant production; and new plant introductions in the nursery industry. Students will also participate in greenhouse management, scheduling of plant production, seed-starting, vegetative propagation and the marketing of winter and spring containerized nursery stock. C-ID HORT 111 + HORT 112 = AG - EH 116L, CSU

HORT-112 Plant Propagation and Production: Summer and Fall

- 3 units SC
- 36 hours lecture/54 hours laboratory per term
 - Prerequisite: HORT-110 (may be taken concurrently) or equivalent
 - Recommended: HORT-125 or equivalent

This course introduces plant propagation and production practices for nursery operations, with an emphasis on sexual and asexual reproduction of summer and fall plants. Topics include summer and fall planting specifications, transplanting, fertilizing, plant pest and disease control; structures and site layout; preparation and use of propagating and planting mediums; use and maintenance of common tools and equipment; regulations pertaining to plant production; and new plant introductions in the nursery industry. Students will also participate in greenhouse management, scheduling of plant production, seed-starting, vegetative propagation and the marketing of summer and fall containerized nursery stock. C-ID HORT 111 + HORT 112 + AG-EH 116L, CSU

HORT-113 Plant Materials and their Uses: Winter and Spring

- 3 units SC
- 36 hours lecture/54 hours laboratory per term
 - Prerequisite: HORT-110 (may be taken concurrently) or equivalent

This course introduces the identification and uses of common plants in the California landscape that are of special interest in the winter or spring. Topics include native and introduced plant identification, growth habits, cultural and environmental requirements, uses in the landscape. Plants emphasized will come from the current California Association of Nurseries & Garden Centers (CANGC) and Professional Landcare Network (PLANET) Certification Tests Plant Lists. C-ID AG-EH 108L, CSU

HORT-114 Plant Materials and their Uses: Summer and Fall

- 3 units SC
- 36 hours lecture/54 hours laboratory per term
 - Prerequisite: HORT-110 (may be taken concurrently) or equivalent

This course introduces the identification and uses of common plants in the California landscape that are of special interest in the summer or fall. Topics include native and introduced plant identification, growth habits, cultural and environmental requirements, uses in the landscape. Plants emphasized will come from the current California Association of Nurseries & Garden Centers (CANGC) and Professional Landcare Network (PLANET) Certification Tests Plant Lists. C-ID AG-EH 112L, CSU

HORT-120 Soil Science and Management

- 3 units SC
- 54 hours lecture per term
 - Prerequisite: HORT-110 or equivalent
 - Recommended: CHEM-106, MATH-110 and eligibility for ENGL-122 or equivalents

This course presents a study of soil science and management of soils. Biology, physics and chemistry are integrated with geological concepts to provide a comprehensive overview of all facets of soil science. Topics covered include soil classification, derivation, use, function and management including erosion, moisture retention, structure, cultivation, organic matter and microbiology. C-ID HORT 120 + HORT 121 = AG-PS 128L, CSU, UC

HORT-121 Soil Science and Management Laboratory

- 1 unit SC
- 54 hours laboratory per term
 - Prerequisite: HORT-110, HORT-120 or equivalents (may be taken concurrently)
 - Recommended: Eligibility for ENGL-122, CHEM-106, MATH-110 or equivalents
 - Formerly HORT-120L

The lab for soils will include identifying soil types, classifications, reactions, fertility and physical properties. Soil management, biology, chemistry and microbiology will be explored. Regional soils and soil quality are investigated. Laboratory required for transfer to CSU. C-ID HORT 120 + HORT 121 = AG - PS 128L, CSU

HORT-125 Integrated Pest Management

- 3.5 units SC
- 54 hours lecture/27 hours laboratory per term
 - Prerequisite: HORT-110 (may be taken concurrently) or equivalent
 - Recommended: eligibility for ENGL-122, MATH-110 or equivalents
 - Note: This course meets the California State Pest Control Advisor, California Association of Nurserymen, and International Society of Arboriculture Continuing Education Units (CEU) license certification for CEUs necessary for pest control operators and advisors

This course will introduce students to plant, insect and disease pests associated in California. Key concepts in applied ecology of pest and beneficial species, insect, vertebrate and disease identification and control methodologies using Integrated Pest Management (IPM) and Plant Health Care models are emphasized. CSU

HORT-148L California Native Plants Laboratory

1 unit SC

- 54 hours laboratory per term
- Recommended: HORT-110 or equivalent

This course presents a study of California plant communities and the environments that shape them. The dominant and typical plant constituents of each vegetation unit, focusing on native species currently used in the nursery industry will be covered. Habitat, soil, and climatic factors will be discussed as related to the plant species established in their natural and horticultural environment, exploring possibilities of integration into residential landscapes. Multiple day field trips to select California vegetation environments are taken to record relevant plant and habitat data. Destinations will vary based on season and term. CSU

HORT-150 Topics in Horticulture

.3-4 units SC

- Variable hours

A supplemental course in horticulture to provide a study of current concepts and problems in horticulture and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

HORT-160 Plant Propagation

1.5 units SC

- 18 hours lecture/27 hours laboratory per term
- Recommended: HORT-110 and eligibility for ENGL-122 or equivalents

This course will introduce students to the principles and practices of plant propagation from seed and vegetative material to marketable nursery stock. The key concepts of physiological processes, environmental requirements and techniques required for successful plant production will be covered. CSU

HORT-163 Nursery and Greenhouse Practices: Summer/Fall

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course develops the knowledge and skills needed to work as a manager or supervisor in the wholesale and retail plant nursery industry and provides advanced training in the production, staging and marketing of plants, staff management and customer care in summer and fall. Topics include office practices, business operations and management and marketing for container, hydroponics and aquaponic greenhouse systems. CSU

HORT-168 Nursery and Greenhouse Practices: Winter/Spring

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course develops the knowledge and skills needed to work as a manager or supervisor in the wholesale and retail plant nursery industry and provides advanced training in the production, staging and marketing of plants, staff management and customer care in winter and spring. Topics include office practices, business operations and management and marketing for container, hydroponics and aquaponic greenhouse systems. CSU

HORT-170 Woody Plants: Identification and Maintenance

4 units SC

- 54 hours lecture/36 hours laboratory per term
- Recommended: HORT-110 and eligibility for ENGL-122 or equivalents
- Note: Field Trips Required. This course meets the plant certification for California Association of Nurserymen, California Landscape Contractor's Licensing and satisfies International Society of Arboriculture Continuing Education units.
- Formerly HORT-143 and HORT-143L

Students will learn the taxonomy, identification, growth habits, landscape values, maintenance requirements and natiivities of woody plants used in regional landscapes. Emphasis will be placed on regenerative landscape design with a focus on ecologically appropriate choices. CSU

HORT-171 Pruning Laboratory

1 unit SC

- 54 hours laboratory per term
- Formerly HORT-137L

This course will provide hands-on experience with winter and spring mechanical modification of common landscape plants, including roses, dormant trees and shrubs, and post-bloom pruning for spring flowering plants. Safety, tool maintenance, tool use, disease prevention and techniques that enhance plant structure will be covered. CSU

HORT-179 Arboriculture

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Recommended: eligibility for ENGL-122, HORT-110 or equivalents
- Note: This course meets the requirements for the California Association of Nurserypersons and International Society of Arboriculture Continuing Education Units (CEU).

This comprehensive class teaches students how to manage trees in urban and suburban landscapes. Included are the benefits that trees provide, and species profiles, form and ecological functions. Observational analysis skills will be taught in conjunction with scientific knowledge to direct assessment and diagnosis. Tree health subjects and applications include species selection, planting and establishment, pruning, safety, cabling, bracing, staking, watering, fertilizing, and pest control. The focus will be on trees appropriate for Contra Costa soils and micro-climates. CSU

HORT-180 Introduction to Landscape Architecture

- 3 units SC
- 36 hours lecture/54 hours laboratory per term
 - Recommended: HORT-110 and ENGL-122 or equivalents

This course presents the basic principles and concepts in the field of landscape architecture and environmental landscape design. The history of human impact on natural environments and methods to mitigate those impacts will be explored. Design standards and practices governing landscape architecture and design skills such as site analysis, planning and construction design will be covered as part of the core of the profession. CSU, UC

HORT-181 Landscape Design I: Graphics

- 3 units SC
- 36 hours lecture/54 hours laboratory per term
 - Co-requisite: HORT-180 (may be taken previously) or equivalent
 - Recommended: HORT-110 and eligibility for ENGL-122 or equivalents

This course presents an introduction to landscape design techniques, communication, process and concepts. Topics include basic landscape design processes, beginning site analysis, methods of graphic representation of vegetation, topography, hardscape and other elements. Students will also use and create basic landscape design plans. CSU, UC

HORT-182 Landscape Design II

- 3 units SC
- 36 hours lecture/54 hours laboratory per term
 - Prerequisite: HORT-180, HORT 181 or equivalent

This course is a continuation of HORT-181, and explores advanced landscape design concepts. Topics include design principles, development of design concepts, creative problem-solving techniques. Emphasis is placed on environmental context and other factors of design and form. CSU, UC

HORT-183 Garden Design

- 1.5 units SC
- 18 hours lecture/27 hours laboratory per term
 - Recommended: HORT-110 or equivalent

This basic design course is intended for students in the nursery and landscape industry as well as interested laypersons and residential homeowners. Fundamental design principles, plant selection, hardscape materials and planting techniques will be covered. Plant selection for seasonal color, energy efficiency and water usage will be introduced. Students will layout a rough site plan overview of a personal garden design. CSU

HORT-185 Site Analysis

- 1.5 units SC
- 18 hours lecture/27 hours laboratory per term
 - Recommended: HORT-182 or equivalent

This course provides an introduction to the site analysis skills required by landscape designers, architects, contractors, maintenance technicians and gardeners. Details of specified sites are assessed, inventoried and documented including climatic, geographical, historical, legal, and infrastructural conditions. CSU

HORT-187 Sustainable Water Management

- 3 units SC
- 36 hours lecture/54 hours laboratory per term
 - Notes: Field trips may be required

This course introduces concepts and practices in landscape irrigation and sustainable water use. Topics include the relationships between plants, soils and water auditing; irrigation design; monitoring techniques; rainwater/greywater collection and delivery systems; subsurface installation; irrigation and system repair. State and local water regulations, water supply and quality are also covered. CSU

HORT-296 Internship in Occupational Work Experience Education in HORT

- 1-4 units SC
- May be repeated three times
 - Variable hours
 - Note: In order to enroll in the HORT-296 course, students must be interning or volunteering, register for the course, complete an online Employment Form, and participate in an orientation. The Employment Form can be accessed at www.dvc.edu/wrkx. Incomplete grades are not awarded for this course.

HORT-296 is a supervised internship in a skilled or professional level assignment in the student's major field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Internships may be paid, non-paid, or some partial compensation provided. Five hours work per week or seventy-five hours work per term is equal to one unit (paid) or one unit for four hours work per week or sixty hours per term (unpaid work). Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

HORT-298 Independent Study

- .5-3 units SC
- Variable hours
 - Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

HORT-299 Student Instructional Assistant

.5-3 units SC

- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

HUMANITIES – HUMAN

Toni Fannin, Dean

Applied and Fine Arts

Business and Foreign Language Building, Room 204

Possible career opportunities

The study of humanities can open up career opportunities in such diverse fields as advertising, banking, editing, publishing, teaching, writing, foreign service, library science, law, public administration, museum work, website design, archaeology, cultural anthropology, art criticism, tourism and journalism.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in arts degree

Humanities

Students completing the program will be able to...

- A. use their critical thinking skills to analyze and evaluate both formally and contextually, a variety of creative works and literary documents.
- B. compare and contrast the historic meaning and impact of works selected from the various arts, and from philosophic and religious literature.
- C. recognize and explain the integration of arts and ideas in selected cultural, historical, and thematic contexts.
- D. demonstrate their ability to articulate clearly in oral and written form objective analysis of major works from the various arts, and from philosophic and religious literature.

Associate in arts degree - Humanities

This degree is designed for students who wish to study a broad range of the arts: music, dance, visual arts, architecture, literature, drama, film, philosophy and history. Through this course of student students will learn to analyze, interpret, and compare a diverse range of art forms and cultures while deepening their understanding of the arts as human expression and honing their critical thinking and writing skills.

The associate in arts in humanities degree is both an interdisciplinary and integrative degree dedicated to the student of arts and ideas in their cultural contexts and to the comparative analysis of the arts. The degree provides a well-rounded and rich background in the creative and intellectual expression of major world civilizations, intellectual and cultural movements, and cultural works of creative expression. Humanities students develop skills in artistic analysis, aesthetic judgements, and other modes of critical thinking. Students develop the ability to view cultural material from multiple perspectives, appreciate and evaluate diverse forms of cultural expression, and understand the criticism and theory regarding major artistic works, styles, forms and movements.

DVC humanities students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to four-year institutions of their choice are met. Students who intend to transfer are advised to select either General Education Option 2 (IGETC) or Option 3 (CSU GE). General Education Option 1 (DVC General Education) is appropriate for students who do not intend to transfer.

To earn an associate in arts degree in humanities, students must complete each required course with a “C” grade or higher, and complete general education requirements as listed in the catalog. Degree requirements can be completed by attending classes in the day, the evening, or both. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

<i>major requirements:</i>	<i>units</i>
<i>complete at least 3 units from:</i>	
HUMAN-110 Humanities: Ancient Civilizations (to 500 A.D.).....	3
HUMAN-111 Humanities: The Middle Ages and Renaissance	3
HUMAN-112 Humanities: The Modern World	3
 <i>complete at least 15 units from:</i>	
HUMAN-105 Introduction to Humanities: Arts and Ideas.....	3
HUMAN-108 Humanities: The Roots of Hell	3
HUMAN-115 Humanities: Multicultural America.....	3
HUMAN-116 Humanities: The Arts and Culture of Asia	3
HUMAN-118 Humanities: Fiction, Film, and Criticism.....	3
HUMAN-123 Humanities: American Popular Culture	3
total minimum units for the major	18

HUMAN-105 Introduction to Humanities: Arts and Ideas

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This is a non-chronological course that introduces students to the integration of creative arts and the world of ideas. Students will learn to analyze, interpret, and relate masterworks selected from literature, music, drama, painting, sculpture, photography, architecture, dance, and film, to trends in philosophy, religion and scientific thought. Works from diverse global cultures may be selected from throughout the various ages of history. Emphasis is placed on the student's personal interaction with human creative expression. CSU, UC

HUMAN-108 Humanities: The Roots of Hell

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course presents an introduction to humanities focused on the theme of hell. Integrating literature, philosophy, the visual arts, music, and film from international sources, students will explore themes such as guilt and responsibility, trial and redemption, and life after death from a variety of cultures. CSU, UC

HUMAN-110 Humanities: Ancient Civilizations

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course presents an introduction to humanities in the ancient world. Integrating the visual arts, music, literature, drama, architecture, philosophy, religion, science, technology, and history, students will explore creative works and ideas from ancient Egypt and Mesopotamia through the late Roman period. CSU, UC

HUMAN-111 Humanities: The Middle Ages and Renaissance

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course presents an introduction to humanities in the Middle Ages and Renaissance. Integrating the visual arts, music, literature, drama, architecture, philosophy, religion, science, technology, and history, students will explore creative works and ideas from the end of the Roman period to the end of the Renaissance. CSU, UC

HUMAN-112 Humanities: The Modern World

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course presents an introduction to humanities in the modern world. Integrating the visual arts, music, literature, drama, architecture, philosophy, religion, science, technology, and history, students will explore creative works and ideas from the Baroque era to the present. CSU, UC

HUMAN-115 Humanities: Multicultural America

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course presents an introduction to the multicultural diversity of contemporary American creative expression through an integrative survey of the visual arts, literature, music, thought and religion, dance, theater, and film. This course will examine contemporary creative works in relation to their historical roots, as well as the contemporary cultural context in which they have been created. CSU, UC

HUMAN-116 Humanities: The Arts and Culture of Asia

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course presents an introduction to the humanities in Asia. Integrating the visual arts, music, literature, drama, architecture, philosophy, religion, science, technology, and history, students will explore creative works and ideas from a variety of Asian cultures. CSU, UC

HUMAN-118 Humanities: Fiction, Film, and Criticism

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course presents an introduction to the integration of three areas of the humanities--literature, cinema, and aesthetic criticism. Students will explore and evaluate the aesthetic make-up of masterworks of literature and film. CSU, UC

HUMAN-123 Humanities: American Popular Culture

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course presents an introduction to humanities focusing on American popular culture, including the arts, entertainment, myths, the heroic tradition, and symbols. CSU, UC

HUMAN-124 Humanities: California Culture

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course presents an introduction to humanities through the study of California arts and culture by integrating the visual arts, music, literature, drama, architecture, philosophy, religion, science, technology, and history. California's artistic expression has shaped the way both native and non-native Californians perceive themselves and their culture. Students will explore creative works and ideas from select periods of California history. Course themes include California land, California people, and "The California Myth" as both utopia and dystopia. CSU, UC

HUMAN-298 Independent Study

- .5-3 units SC
- Variable hours
- Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

HUMAN-299 Student Instructional Assistant

- .5-3 units SC
- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

INDUSTRIAL DESIGN - IDSGN

Joseph Gorga, Dean
 Physical Sciences and Engineering Division
 Physical Sciences Building, Room 263

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in science degree

Industrial design

Students completing the program will be able to...

- A. work within a team of diverse industry professionals to establish and meet design criteria.
- B. use advanced consumer research techniques to better understand human-centered design.
- C. design a product using two-dimensional and three-dimensional computer software.
- D. develop detailed technical drawings of a product.
- E. determine the most efficient and responsible manufacturing method for the product.
- F. prototype an object from a given technical drawing or three-dimensional CAD model.
- G. design and prototype mechanical parts in collaborating with engineers.
- H. use computer integrated manufacturing (CIM) and computer numerical control (CNC) software for automation of manufacturing.

Associate in science - Industrial design

The associate in science degree in industrial design is offered to provide students with academic and technical skills required for transfer to leading industrial design programs offered at four-year universities. The associate in science degree curriculum also provides students with a highly valued skillset needed to enter the modern workforce.

Graduates of the industrial design program can be employed in research and development, rapid prototyping and fabrication, product design, package design, soft goods design, and transportation design. Students in the program will learn how to design products for consumers and industry, as well as utilize advanced surface modeling software and milling programs used for computer numerical control (CNC) manufacturing equipment including 3D printers. Students completing this program will also be candidates for a broad range of manufacturing and corporate jobs requiring a combination of technical knowledge and communication skills needed to collaborate with marketing and engineering personnel and skilled workers in various trades and specialties.

Students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to four-year institutions of their choice are met. Students who intend to transfer are advised to select General Education option 2 (IGETC) or option 3 (CSU GE). Option 1 (DVC General Education) is not generally advised.

To earn an associate degree with a major in industrial design, students must complete each of the courses required for the major with a "C" grade or higher, maintain an overall GPA of 2.5 or higher and complete general education requirements as listed in the catalog. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

<i>required courses:</i>	<i>units</i>
ARCHI-135 Digital Tools for Design.....	3
ART-102 Introduction to Three-Dimensional Design and Sculpture.....	3
ART-105 Drawing I.....	3
ENGTC-119 Introduction to Technical Drawing.....	3
ENGTC-126 Computer Aided Design and Drafting-AutoCAD.....	3
ENGTC-129 Product Design I Using SolidWorks.....	3
IDSGN-105 Assembly and Fabrication Workshop.....	2
IDSGN-120 Introduction to Industrial and Product Design.....	3
IDSGN-121 Industrial and Product Design Foundations.....	3
 <i>plus at least 3 units from:</i>	
ENGTC-165 Manufacturing Processes: Material Machining I.....	3
ENGTC-168 Introduction to Computer Numerical Control.....	3
IDSGN-107 Furniture Design Studio.....	2
IDSGN-220 Soft Goods Product Design Studio.....	4
IDSGN-221 Transportation Design Studio.....	4
total minimum units for the major	29

Certificate of achievement

Industrial design

Students completing the program will be able to...

- A. work within a team of diverse industry professionals to establish and meet design criteria.
- B. use advanced consumer research techniques to better understand human-centered design.
- C. design a product using two-dimensional and three-dimensional computer software.
- D. develop detailed technical drawings of a product.
- E. determine the most efficient and responsible manufacturing method for the product.
- F. prototype an object from a given technical drawing or three-dimensional CAD model.
- G. design and prototype mechanical parts in collaborating with engineers.
- H. use computer integrated manufacturing (CIM) and computer numerical control (CNC) software for automation of manufacturing.

Certificate of achievement - Industrial design

The certificate of achievement in industrial design is intended for students who wish to enter the workforce directly in an industrial design field without transferring to a four-year university program. The certificate of achievement prepares students for a career as an industrial design intern, modeler or designer offering technical support, design, and modeling and fabrication assistance in an industrial design office.

Industrial design interns and technicians prepare models, presentation drawings, computer models and renderings for the design and production of everyday objects and tools, household products, soft goods, packaging and transportation design.

To earn a certificate of achievement in industrial design, students must complete each of the required courses required with a "C" grade or higher and maintain an overall GPA of 2.5 or higher.

<i>required courses:</i>	<i>units</i>
ARCHI-135 Digital Tools for Design	3
ART-102 Introduction to Three-Dimensional Design and Sculpture	3
ART-105 Drawing I.....	3
ENGTC-119 Introduction to Technical Drawing.....	3
ENGTC-126 Computer Aided Design and Drafting-AutoCAD	3
ENGTC-129 Product Design I Using SolidWorks	3
IDSGN-105 Assembly and Fabrication Workshop.....	2
IDSGN-120 Introduction to Industrial and Product Design.	3
IDSGN-121 Industrial and Product Design Foundations.....	3

<i>plus at least 3 units from:</i>	
ENGTC-165 Manufacturing Processes: Material Machining I	3
ENGTC-168 Introduction to Computer Numerical Control	3
IDSGN-107 Furniture Design Studio	2
IDSGN-220 Soft Goods Product Design Studio.....	4
IDSGN-221 Transportation Design Studio.....	4

total minimum required units 29

IDSGN-105 Assembly and Fabrication Workshop

2 units SC

- 18 hours lecture/54 hours laboratory per term

This course presents methods of fabrication for projects in metal, wood, plastic and other materials and includes an introduction to shop safety. The use of hand tools, power tools and an introduction to computer controlled tools such as laser cutters and computer numerical control (CNC) routers is also covered. This course introduces the principles necessary to fabricate parts, components, and prototypes for a variety of technical applications. CSU

IDSGN-107 Furniture Design Studio

2 units SC

- 18 hours lecture/54 hours laboratory per term
- Recommended: IDSGN-105 or equivalent

This course introduces furniture design, construction, and assembly. Topics include design development, working drawings and assembly drawings, digital and physical modeling, and final assembly of furniture. Detailing, fabrication, and utilization of computer numerical control (CNC) routers to build finished products will be emphasized. CSU

IDSGN-120 Introduction to Industrial and Product Design

3 units SC

- 36 hours lecture/72 hours laboratory per term

This introductory course will expose students to a broad spectrum of product design and general design principles and theories with a focus on visual theory, aesthetics, and historical context. Emphasis is placed on develop of critical thinking skills through the analysis of cultural and technological constructs that influence the creation of specific products. Design research methodology and creative problem solving skills will be emphasized and explored through the completion of studio projects. CSU, UC

IDSGN-121 Industrial and Product Design Foundations

3 units SC

- 36 hours lecture/72 hours laboratory per term
- Prerequisite: IDSGN-120 or equivalent

This project-based industrial design course introduces comprehensive design strategy and thought processes required to develop consumer products. Product research, design, and three-dimensional prototyping will be based on design briefs to develop problem-solving abilities. CSU

IDSGN-220 Soft Goods Product Design Studio

4 units SC

- 36 hours lecture/108 hours laboratory per term
- Prerequisite: IDSGN-120 or equivalent

This course explores materials and textiles required for the construction of wearable products and their impact on lifestyles and fashion. Students will design a variety of soft goods products including fashion, high-end accessories, clothing, shoes, and recreational equipment such as tents and sleeping bags. Creative problem-solving, research, design, and prototyping are emphasized. CSU

IDSGN-221 Transportation Design Studio

4 units SC

- 36 hours lecture/108 hours laboratory per term
- Prerequisite: IDSGN-121 or equivalent

This course presents the history of automotive styling trends and evolution, design philosophy, and cultural influences on the automobile. Emphasis is placed on accurate proportion based on the packaging of occupants and components, human factors, target market analysis, and brand identity. Final outcomes include sketches, renderings, package drawings, written reports, and scale models. CSU

INTD-140 Tutor Training

1 unit SC

- 18 hours lecture per term
- Note: Students who want to tutor in the Pleasant Hill Campus English Lab must take ENGL-140 instead of INTD-140. Students who want to tutor in the Pleasant Hill Campus Math Lab must take MATH-140 instead of INTD-140.

This one-unit course will provide students with an introduction to the principles of effective tutoring. Students will learn the strategies of tutoring that foster independent learning and will use strategies such as questioning techniques to deepen critical thinking. CSU

INTERDISCIPLINARY STUDIES - INTD

Kim Schenk, Senior Dean

Instruction Office

Administration Building, AB 214

ITALIAN – ITAL

Toni Fannin, Dean

Applied and Fine Arts

Business and Foreign Language Building, Room 204

INTD-100 Study Abroad Life and Culture

3 units SC

- 54 hours lecture per term

This course introduces students to the norms, culture, social structures, economic, and political systems of a foreign country as part of the study abroad program. Students learn about another culture through lectures by local experts, organized field trips, and authentic experiences. CSU

INTD-101A Reading and Writing in the Social Sciences

1 unit SC

- 18 hours lecture per term

This class is designed to help students improve their reading and writing skills. Using students' social science tests as a starting point, the course will focus on a variety of success strategies, including strategies for reading, writing, and general academic success. Students who enroll in INTD-101A are expected to be concurrently enrolled in a social science course at the college. CSU

INTD-120 College Seminar

.5-3 units SC

- Variable hours
- COLQY 120

College seminar provides the opportunity for students and faculty to discuss and analyze particular topics related to one or more disciplines. The schedule of classes will indicate the specific subject matter of each seminar offered. CSU

Possible career opportunities

The study of Italian can open up opportunities in communications, foreign trade and banking, transportation, government, the Foreign Service, tourism, library services, teaching, professional translating, journalism, and all levels of education, including university teaching. Most foreign language careers require more than two years of study.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in arts**Italian****Students completing the program will be able to...**

- communicate verbally in the target language with accurate pronunciation in meaningful situations present in both informal and formal contexts.
- effectively apply rules of grammar and syntax in tandem with appropriate vocabulary in written and oral communication.
- demonstrate auditory comprehension of instruction, authentic content, and purposeful conversations in the target language.
- discuss, describe, and infer information from authentic texts in the target language.
- demonstrate cultural appreciation by making (comparative) connections, on both an individual and societal level, between the target cultures and students' own cultures.
- create (write or present) narratives and/or arguments that demonstrate cohesive critical thinking in the target language.

The associate in arts degree in Italian at DVC will provide students with skills in understanding, speaking, reading and writing Italian. It also gives students a greater understanding of Italian culture and civilization and will prepare them for a broad range of international and domestic career opportunities and professions. The degree will also provide students the opportunity to transfer to UC, CSU and other four-year colleges and universities to earn a bachelor's degree.

The DVC Italian major is intended for transfer. Students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to baccalaureate-granting institutions of their choice are met. Students who intend to transfer are advised to select General Education Option 2 (IGETC) or Option 3 (CSU GE). Option 1 (DVC General Education) is appropriate for those students who do not intend to transfer. Students may not take a pass/no pass option for major courses and each of the major requirements must be completed with a "C" grade or higher. Certain courses may satisfy both major and general education requirements; however, the units are counted only once.

To earn an associate degree in Italian, students must complete 20 units from the list of major requirements, which will provide students with the essential grammar of the language, culture and basic literature of Italy. Students with no previous knowledge of Italian when entering DVC will take the first four courses in the list for a total of 20 units. If students enter the program with previous knowledge of Italian, they may start at the second term level and take fifth and sixth terms to achieve a total of 21 units.

<i>complete at least 20 units from:</i>		<i>units</i>
ITAL-120	First Term Italian.....	5
ITAL-121	Second Term Italian	5
ITAL-220	Third Term Italian.....	5
ITAL-221	Fourth Term Italian	5
ITAL-230	Fifth Term Italian.....	3
ITAL-231	Sixth Term Italian.....	3
total minimum units for the major		20

Certificate of achievement Italian

Students completing the program will be able to...

- A. communicate verbally in the target language with accurate pronunciation in meaningful situations present in both informal and formal contexts.
- B. effectively apply rules of grammar and syntax in tandem with appropriate vocabulary in written and oral communication.
- C. demonstrate auditory comprehension of instruction, authentic content, and purposeful conversations in the target language.
- D. discuss, describe, and infer information from authentic texts in the target language.
- E. demonstrate cultural appreciation by making (comparative) connections, on both an individual and societal level, between the target cultures and students' own cultures.
- F. create (write or present) narratives and/or arguments that demonstrate cohesive critical thinking in the target language.

This certificate of achievement was created to give students the opportunity to show potential employers in this country and in other countries that the student has completed a certain number of courses in Italian and prepares students with an intermediate to advanced knowledge of Italian and familiarizes them with the culture of Italy.

This certificate of achievement provides students, prospective employers and others with documented evidence of persistence and academic accomplishment in the language. The certificate requires completion of at least 13 units from the following list of courses. Students may not take a credit/no credit option for required courses and each course must be completed with a "C" grade or higher.

<i>complete at least 13 units from:</i>		<i>units</i>
ITAL-120	First Term Italian.....	5
ITAL-121	Second Term Italian	5
ITAL-220	Third Term Italian.....	5
ITAL-221	Fourth Term Italian	5
ITAL-230	Fifth Term Italian.....	3
ITAL-231	Sixth Term Italian.....	3
total minimum required units		13

ITAL-120 First Term Italian

5 units SC

- 90 hours lecture per term
- *Note: This course is equivalent to two years of high school study.*

This course provides an introduction to the Italian language and the culture of Italian-speaking countries. Topics include the four language skills: speaking, listening, reading, and writing. Emphasis is placed on active use of the language in class as well as basic communicative functions and structures. CSU, UC

ITAL-121 Second Term Italian

5 units SC

- 90 hours lecture per term
- *Prerequisite: ITAL-120 or two years of high school study or equivalent*
- *Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.*

This is the second course in a sequence of Italian courses. The course continues skill building in understanding, speaking, reading, and writing of the Italian language. The expansion of vocabulary and more advanced communicative functions and structures, as well as a deeper examination of the cultures of Italian-speaking countries are emphasized. CSU, UC

ITAL-150 Topics in Italian

.3-4 units SC

- *Variable hours*

A supplemental course in Italian to provide a study of current concepts and problems in Italian and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

ITAL-220 Third Term Italian

5 units SC

- 90 hours lecture per term
- *Prerequisite: ITAL-121 or three years of high school study or equivalent*
- *Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.*

This is a third term intermediate Italian course that develops functional fluency in understanding, speaking, reading, and writing Italian. Students are introduced to the study of Italian literature. There is further study and interpretation of Italian culture. CSU, UC

ITAL-221 Fourth Term Italian

5 units SC

- 90 hours lecture per term
- *Prerequisite: ITAL-220 or four years of high school study or equivalent*
- *Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.*

This is a fourth term intermediate Italian course that continues to develop fluency in all aspects of the Italian language with particular attention to literary forms as reflected in contemporary Italian. The present, past and imperfect subjunctive are covered. CSU, UC

ITAL-230 Fifth Term Italian

3 units SC

- 54 hours lecture per term
- *Prerequisite: ITAL-221 or equivalent*
- *Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.*

This is the fifth term advanced Italian course emphasizing reading, writing (prioritizing the mechanics of academic writing), listening, and speaking skills. The rich Italian heritage is explored through a wide range of materials including short stories, articles, poems, films, and documentaries. This course is taught entirely in Italian. CSU, UC

ITAL-231 Sixth Term Italian

3 units SC

- 54 hours lecture per term
- *Prerequisite: ITAL-230 or equivalent*
- *Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.*

This is the sixth term advanced Italian language course strengthening reading, writing (prioritizing the mechanics of academic writing), listening, and speaking skills. Deepening the exploration of the rich Italian heritage through a wide range of materials including novels, articles, poems, films, documentaries, and dramas. This course is taught entirely in Italian. CSU, UC

ITAL-299 Student Instructional Assistant

.5-3 units SC

- *Variable hours*
- *Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.*

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

JAPANESE – JAPAN

Toni Fannin, Dean
 Applied and Fine Arts
 Business and Foreign Language Building, Room 204

Possible career opportunities

The study of Japanese can open up opportunities in communications, foreign trade and banking, transportation, government, the Foreign Service, tourism, library services, teaching, professional translating, journalism, and all levels of education, including university teaching. Most foreign language careers require more than two years of study.

Program learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in arts degree Japanese

Students completing the program will be able to...

- A. communicate verbally in the target language with accurate pronunciation in meaningful situations present in both informal and formal contexts.
- B. effectively apply rules of grammar and syntax in tandem with appropriate vocabulary in written and oral communication.
- C. demonstrate auditory comprehension of instruction, authentic content, and purposeful conversations in the target language.
- D. discuss, describe, and infer information from authentic texts in the target language.
- E. demonstrate cultural appreciation by making (comparative) connections, on both an individual and societal level, between the target cultures and students' own cultures.
- F. create (write or present) narratives and/or arguments that demonstrate cohesive critical thinking in the target language.

The associate in arts degree in Japanese at DVC will provide students with skills in understanding, speaking, reading and writing Japanese. The curriculum exposes students to Japanese culture and civilization and provides foundational skills in language that can apply to a broad range of international and domestic career opportunities and professions. The degree will provide lower division preparation for transfer to UC, CSU and other four year colleges and universities to earn a bachelor's degree.

The DVC Japanese major is intended for transfer. Students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to baccalaureate-granting institutions of their choice are met. Students who intend to transfer are advised to select General Education Option 2 (IGETC) or Option 3 (CSU GE). Option 1 (DVC General Education) is appropriate for those students who do not intend to transfer. Students may not take a pass/no pass option for major courses and each of the major requirements must be completed with a "C" grade or higher. Certain courses may satisfy both major and general education requirements; however, the units are counted only once.

To earn an associate in arts degree in Japanese, students must complete one of the following lists of courses. The core Japanese courses provide students with the essential grammar of the language and culture of Japan. The Kanji courses provide students with practice in Kanji characters used in writing the Japanese language.

List A

<i>complete at least 20 units from:</i>		<i>units</i>
JAPAN-120	First Term Japanese.....	5
JAPAN-121	Second Term Japanese.....	5
JAPAN-220	Third Term Japanese.....	5
JAPAN-221	Fourth Term Japanese.....	5
total minimum units for the major		20

List B

<i>complete at least 21 units from:</i>		
JAPAN-121	Second Term Japanese.....	5
JAPAN-130	First Term Kanji.....	3
JAPAN-131	Second Term Kanji.....	3
JAPAN-132	Third Term Kanji.....	3
JAPAN-220	Third Term Japanese.....	5
JAPAN-221	Fourth Term Japanese.....	5
total minimum units for the major		21

List C

<i>complete at least 19 units from:</i>		
JAPAN-130	First Term Kanji.....	3
JAPAN-131	Second Term Kanji.....	3
JAPAN-132	Third Term Kanji.....	3
JAPAN-220	Third Term Japanese.....	5
JAPAN-221	Fourth Term Japanese.....	5
total minimum units for the major		19

Certificate of achievement Japanese

Students completing the program will be able to...

- communicate verbally in the target language with accurate pronunciation in meaningful situations present in both informal and formal contexts.
- effectively apply rules of grammar and syntax in tandem with appropriate vocabulary in written and oral communication.
- demonstrate auditory comprehension of instruction, authentic content, and purposeful conversations in the target language.
- discuss, describe, and infer information from authentic texts in the target language.
- demonstrate cultural appreciation by making (comparative) connections, on both an individual and societal level, between the target cultures and students' own cultures.
- create (write or present) narratives and/or arguments that demonstrate cohesive critical thinking in the target language.

The certificate of achievement was created to give students the opportunity to show potential employers in this country and in other countries that the student has completed a certain number of courses in Japanese and prepares students with an intermediate to advanced knowledge of Japanese and familiarizes them with the culture of Japan.

This certificate of achievement provides students, prospective employers and others with documented evidence of persistence and academic accomplishment in the language. The certificate requires completion of one of the following lists of courses. Students may not take a credit/no credit option for required courses and each course must be completed with a "C" grade or higher.

complete at least 15 units from:

JAPAN-120	First Term Japanese.....	5
JAPAN-121	Second Term Japanese	5
JAPAN-220	Third Term Japanese.....	5
JAPAN-221	Fourth Term Japanese	5
	total minimum required units	15

complete at least 13 units from:

JAPAN-121	Second Term Japanese	5
JAPAN-130	First Term Kanji	3
JAPAN-131	Second Term Kanji	3
JAPAN-132	Third Term Kanji	3
JAPAN-220	Third Term Japanese	5
JAPAN-221	Fourth Term Japanese.....	5
	total minimum required units	13

JAPAN-120 First Term Japanese

5 units SC

- 90 hours lecture per term
- Note: This course is equivalent to two years of high school study.

This course provides an introduction to the Japanese language and the culture of Japanese-speaking countries. Topics include the four language skills: speaking, listening, reading, and writing. Emphasis is placed on active use of the language in class as well as basic communicative functions and structures. CSU, UC

JAPAN-121 Second Term Japanese

5 units SC

- 90 hours lecture per term
- Prerequisite: JAPAN-120 or two years of high school study or equivalent
- Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.

This is the second course in a sequence of Japanese language courses. The course continues skill building in understanding, speaking, reading, and writing of the Japanese language. The expansion of vocabulary (characters) and more advanced communicative functions and structures, as well as a deeper examination of the cultures of Japanese-speaking countries are emphasized. CSU, UC

JAPAN-130 First Term Kanji

3 units SC

- 54 hours lecture per term
- Recommended: JAPAN-120 or equivalent

This course is an intensive study of Kanji characters to enhance competence in reading and writing Japanese in daily life situations. Examples include reading and comprehending simple essays and articles, and understanding Kanji used in everyday life. The course will cover up to 169 characters. CSU

JAPAN-131 Second Term Kanji

3 units SC

- 54 hours lecture per term
- Recommended: JAPAN-130 or equivalent

This course is designed for those who have taken JAPAN-130 or who have the equivalent knowledge and skills. Students will further develop their competence in reading and writing Japanese. Examples include reading more complicated essays and letters, and understanding maps, road signs, and TV listings. The course will cover up to 345 characters. CSU

JAPAN-132 Third Term Kanji

3 units SC

- 54 hours lecture per term
- Recommended: JAPAN-131 or equivalent

This course is designed for those who have taken JAPAN-131 or who have the equivalent knowledge and skills. Students will improve their advanced competence in reading and writing Japanese. Examples include reading and comprehending intermediate-level essays and understanding the pamphlets for travel, train timetables, and newspaper headlines. The course will cover up to 500 characters. CSU

JAPAN-150 Topics in Japanese

- .3-4 units SC
• Variable hours

A supplemental course in Japanese to provide a study of current concepts and problems in Japanese and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

JAPAN-220 Third Term Japanese

- 5 units SC
• 90 hours lecture per term
• Prerequisite: JAPAN-121 or three years of high school study or equivalent
• Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.

This course develops fluency in speaking, listening, reading, and writing skills in Japanese. Students will learn both formal and informal speech styles, and expand conversational skills and vocabulary with new Kanji characters. A variety of contemporary and traditional Japanese cultural elements will be explored. CSU, UC

JAPAN-221 Fourth Term Japanese

- 5 units SC
• 90 hours lecture per term
• Prerequisite: JAPAN-220 or four years of high school study or equivalent
• Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.

This course further develops the fluency in speaking, listening, reading, and writing skills in Japanese. Students will extend their ability to communicate effectively and properly in various real-life situations, learn complex grammatical structures, and increase vocabulary using a significant number of Kanji characters. This course includes further study of contemporary and traditional Japanese cultural elements. CSU, UC

JAPAN-298 Independent Study

- .5-3 units SC
• Variable hours
• Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

JAPAN-299 Student Instructional Assistant

- .5-3 units SC
• Variable hours
• Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

JOURNALISM – JRNAL

Obed Vazquez, Dean
English Division
Faculty Office Building, Room 136

Possible career opportunities

The journalism program prepares students in the writing, reporting, and critical thinking skills required for jobs in the news media or for transfer to a journalism program at a four-year institution. Career options include copy editor, script writer, broadcast journalist, newspaper reporter, magazine writer, columnist, public information officer, online writer, speech writer, freelance writer, advertising copy writer, editor, and photojournalist. Some career options may require more than two years of college study.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in arts in journalism for transfer

Students completing the program will be able to...

- A. use a variety of media and sources to produce journalistic products that demonstrate good news judgment, appropriate sourcing, accuracy and completeness, technical competence and adherence to ethical, legal and style guidelines.
- B. understand and analyze how history, economics, politics, law or government regulation affect the climate for journalism and freedom of speech in the United States.
- C. demonstrate good work habits, time management and professionalism while working collaboratively and under deadline pressure to produce a news product.

The journalism program prepares students in the writing, reporting and critical thinking skills required for jobs in the news media and for transfer to a journalism program at a four-year institution. Career options include copy editor, script writer, broadcast journalist, news reporter, magazine writer, columnist, public information officer, online writer, freelance writer, advertising copy writer, editor and photo-journalist. Some career options may require more than two years of college study.

The associate in arts in journalism for transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education pattern (CSU GE); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Some courses in the major satisfy both major and CSU GE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

major requirements:	units
JRNAL-110 Mass Media of Communications.....	3
JRNAL-120 Introduction to Newswriting and Reporting	3
JRNAL-126 News Production Laboratory I.....	3
<i>plus at least 3 units from:</i>	
JRNAL-127 News Production Laboratory II.....	3
JRNAL-130 Multimedia Reporting.....	3
<i>plus at least 6 units from:</i>	
ART-160 Photography I.....	3
BUS-240 Business Statistics.....	3
or	
MATH-142 Elementary Statistics with Probability.....	4
COMM-123 Argumentation and Debate.....	3
ENGL-126 Critical Thinking: The Shaping of Meaning in Language.....	3
ECON-220 Principles of Macroeconomics	3
or	
ECON-221 Principles of Microeconomics	3
POLSC-121 Introduction to United States Government	3
POLSC-220 Comparative Politics	3
total minimum units for the major	18

JRNAL-110 Mass Media of Communication

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents an introduction to major mass media and their impact on American life. The history of mass media, how they are structured, who controls them and how they influence individual and social values will be explored. Topics include First Amendment rights and responsibilities, techniques of persuasion and propaganda, the blurred line between entertainment and news, the role of journalists in war time, issues of credibility and trust and the impact of the "new media" - digital technology and the Internet - on the traditional forms of mass communication. Critical thinking and analysis of the images and sounds that so powerfully shape the public mind will be emphasized. C-ID JOUR 100, CSU, UC

JRNAL-120 Introduction to Newswriting and Reporting

3 units SC

- 54 hours lecture per term
- Recommended: ENGL-118 or equivalent

This course introduces students to journalism reporting and writing for print, online and the broadcast media. It includes generating story ideas, developing sources, conducting interviews and online research, taking accurate notes, observing detail, exercising news judgment and crafting stories appropriate for various media. The course also covers sensitivity to multicultural issues and explores libel laws and media ethics. Students will learn how to write strong lead sentences, how to organize their findings into lively and informative stories, and how to write and revise their work on deadline. Students may publish some assignments in the college's student newspaper, *The Inquirer*, or use them for other student media. C-ID JOUR 110, CSU

JRNAL-125 News Production Fundamentals

2-3 units SC

- Variable hours
- Note: Journalism majors should take JRNAL-120.

This course introduces non-journalism majors to the fundamentals of reporting and writing the news through a practical approach that is intended to include publication in the college's student newspaper, *The Inquirer*, or its online new site. Emphasis is placed on news judgment, basic legal and ethical principles, interviews and note-taking, digital news photographs news story basics. Students who enroll in three units will go into greater depths on these topics and may begin to apply their skills using different media or in feature-style writing. CSU

JRNAL-126 News Production Laboratory I

- 3 units SC
- 18 hours lecture/108 hours laboratory per term
 - Prerequisite: JRNAL-120 (may be taken concurrently) or JRNAL-125 or JRNAL-130 or equivalent
 - Recommended: ENGL-118 or equivalent

Intermediate journalism students refine news-gathering skills introduced in JRNAL-120 while producing content for *The Inquirer*, the college's student newspaper and its website. Emphasis is placed on beat coverage and working in formats suitable for print, social media and the Internet. Students will practice news judgment, ethics, and accuracy while meeting daily and weekly deadlines. They will also exercise their First Amendment responsibilities by ensuring that *The Inquirer* is a forum for the diverse views of the DVC community. C-ID JOUR 130, CSU

JRNAL-127 News Production Laboratory II

- 3 units SC
- 18 hours lecture/108 hours laboratory per term
 - Prerequisite: JRNAL-126 or equivalent

This course is a continuation of JRNAL-126 and requires higher skill level and/or leadership/management involvement for the college's student newspaper, "*The Inquirer*" and its website. Emphasis is placed on management skills, methods for tackling longer-term projects, practical experience in design/layout, and working in formats suitable for print, social media and the internet. Students will be expected to exercise news judgment, meet daily and weekly deadlines, adhere to the highest ethical principles and be vigilant about accuracy. They will also exercise their First Amendment responsibilities by allowing *The Inquirer* to be a forum for the diverse views of the DVC community. C-ID JOUR 131, CSU

JRNAL-128 News Production Portfolio Development

- 3 units SC
- 18 hours lecture/108 hours laboratory per term
 - Note: Classes such as JRNAL-120, ART-105, ART-160, ARTDM-136, ARTDM-165, ARTDM-214 or FTVE-120 could provide good preparation for this course of instruction.

This intermediate class is designed for students preparing for employment in journalism and associated fields. Students with prior instruction in reporting, photography, illustration, design or digital media will create and publish works for "*The Inquirer*" while learning the basic principles of preparing a professional portfolio. CSU

JRNAL-130 Multimedia Reporting

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course is an introduction to multimedia storytelling tools for journalism. Students will explore techniques that use tools such as text, photographs, video or audio to tell news or feature stories on the Internet or through social media. It will also include techniques in digital research. C-ID JOUR 120, CSU

JRNAL-160 Introduction to Feature Reporting

- 3 units SC
- 54 hours lecture per term
 - Recommended: ENGL-118 or equivalent

This course equips students to research, write and market feature stories for magazines, websites and newspapers. Topics covered include choosing and focusing on a story idea, interviewing sources, using storytelling techniques, locating a market and framing a query. Students learn to evaluate and use online sources and public documents. Basic principles of media law, including libel and copyright, are introduced. Students develop feature stories and market them to appropriate venues. CSU

JRNAL-298 Independent Study

- .5-3 units SC
- Variable hours
 - Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

KINESIOLOGY – KINES

Christine Worsley, Dean
Kinesiology, Athletics and Dance Division
Kinesiology Office Building, Room 104

Possible career opportunities

Kinesiology is the interdisciplinary study of human movement, including but not limited to history, sociology, psychology, physiology and biomechanics. As a result, students earning a degree in kinesiology are able to pursue a wide variety of careers: physical education, coaching, athletic training (including sports medicine and allied health fields such as physical therapy, physician assistant and nursing), fitness instruction (personal training and strength and conditioning) and sports/recreation management (including sport administration, journalism, marketing, and law, as well as community parks and recreation). Many career options require more than two years of college study.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in arts in kinesiology for transfer

Students completing the program will be able to...

- describe and explain the scholarly study of human movement and its significance to our understanding of physical activity.
- assess the importance of physical activity in our daily lives (e.g. recreation, self-expression, health, competition, etc.).
- differentiate among the sub-disciplines of kinesiology (e.g. history, biomechanics, philosophy, etc.) and discuss the knowledge specific to those areas.
- demonstrate knowledge in related disciplines required as core preparation for kinesiology majors (e.g. chemistry, biology, physics, statistics, etc.).
- apply a variety of research methods to locate and use appropriate information from various sources.

Kinesiology is the academic discipline focusing on the study of all aspects of human movement. Programs of study at the baccalaureate level include exercise science, sports management, allied health profession preparation, and pursuit of a teaching credential to become a secondary school teacher/coach.

The associate in arts in kinesiology for transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education-Breadth pattern (CSU GE-Breadth); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Students must complete each course used to meet a major requirement with a "C" grade or higher. Some courses in the major satisfy both major and CSUGE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

major requirements:

	<i>units</i>
BIOSC-139 Human Anatomy.....	5
BIOSC-140 Human Physiology	5
KINES-210 Introduction to Kinesiology.....	3

plus a minimum of 6 units from:

BUS-240 Business Statistics.....	3
or	
MATH-142 Elementary Statistics with Probability.....	4
BIOSC-117 Human Biology with Laboratory	4
CHEM-120 General College Chemistry I.....	5
HSCI-230 Advanced First Aid/CPR	3
PHYS-120 General College Physics.....	4
or	
PHYS-130 Physics for Engineers and Scientists A-Mechanics and Wave Motion.....	4

plus at least 3 units from:

Maximum of one course (minimum one unit) from any three of the following areas:

Aquatics

KNACT-100A Beginning Swimming	0.5-2
KNACT-102A Beginning Aquatic Fitness	0.5-2
KNACT-104 Water Aerobics.....	0.5-2

Fitness

KNACT-110A Beginning Hatha Yoga	0.5-2
KNACT-126 Aerobics/Step Aerobics.....	0.5-2
KNACT-128A Beginning Cardio Kickboxing	0.5-2
KNACT-130A Beginning Fitness Walking.....	0.5-2
KNACT-148A Beginning Power Lifting	0.5-2
KNDAN-105A Pilates Mat Work I	0.5-2

Individual sports

KNACT-160A Beginning Badminton.....	0.5-2
KNACT-162 Bowling.....	0.5-2
KNACT-164A Beginning Golf.....	0.5-2
KNACT-164B Intermediate Golf.....	0.5-2
KNACT-166A Beginning Tennis.....	0.5-2

Team sports

KNACT-170A Beginning Basketball	0.5-2
KNACT-172 Flag Football.....	0.5-2
KNACT-176A Beginning Soccer.....	0.5-2
KNACT-182A Beginning Volleyball.....	0.5-2
KNACT-182B Intermediate Volleyball.....	0.5-2
KNACT-182C Advanced Volleyball.....	0.5-2

Combatives

KNCMB-110 Self Defense	0.5-2
KNCMB-118A Beginning Taekwondo	0.5-2
KNCMB-126A Beginning Aikido	0.5-2
KNCMB-134 Karate	0.5-2

Dance

KNDAN-100 Introduction to Dance	0.5-2
KNDAN-164A Ballroom/Social Dance I	0.5-2

total minimum units for the major 22

**Associate in science degree
Fitness instruction**

Students completing the program will be able to...

- A. conduct assessment of personal fitness levels.
- B. develop a conditioning program to improve conditioning levels utilizing the periodization model.
- C. design a conditioning program to meet the unique needs of special populations.

The associate in science degree in fitness instruction is a two-year course of study designed for students who are interested in a career in the fitness industry and/or wish to transfer to a four-year institution in kinesiology or related major. It will expose students to many facets of the fitness industry and is appropriate for those students who wish to become a personal trainer and/or group exercise instructor. Completion of the degree will also prepare students to sit for one of the national personal training or group exercise instructor certification examinations. Students who intend to transfer to a four-year institution must consult with program faculty and college counselors to ensure that the requirements for transfer to appropriate institutions are met. Possible programs of study at the baccalaureate level include exercise science, strength and conditioning, preparation for a teaching credential or other specialty area under the kinesiology umbrella.

To earn a degree, students must complete each course used to meet a major requirement with a "C" grade or higher and complete general education requirements as listed in the catalog. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

<i>major requirements:</i>	<i>units</i>
HSCI-230 Advanced First Aid/CPR	3
KINES-234 Introduction to Sports Medicine and Athletic Training.....	3
KINES-240 Principles of Optimizing Human Performance.....	3
KINES-242 Exercise Techniques and Fitness Assessments.....	1
KINES-246 Sport and Exercise Psychology.....	3
KINES-248 Sport and Society	3
KINES-250 Professional Aspects of Personal Training.....	3
KINES-252 Professional Aspects of Group Personal Training	1.5
KINES-254 Practical Experience in Personal Training and Fitness Instruction I	4
KINES-255 Practical Experience in Personal Training and Fitness Instruction II.....	4

<i>plus at least 3 units from:</i>	
BIOSC-101 Fundamentals of Biological Science	3
BIOSC-102 Fundamentals of Biological Science with Laboratory	4
BIOSC-116 Human Biology	3
BIOSC-117 Human Biology with Laboratory	4
BIOSC-120 Introduction to Human Anatomy and Physiology	5
BIOSC-139 Human Anatomy.....	5
BIOSC-140 Human Physiology	5

<i>plus at least 3 units from:</i>	
HSCI-124 Health and Wellness.....	3
HSCI-170 Women's Health	3

<i>plus at least 3 units from:</i>	
NUTRI-120 Sports Nutrition: Fueling the Athlete	3
NUTRI-160 Nutrition: Science and Applications	3

<i>plus at least 2 units from:</i>	
KNACT-146A Theory and Practice of Strength Training and Fitness I	0.5-2
KNACT-146B Theory and Practice of Strength Training and Fitness II	0.5-2
KNACT-146C Theory and Practice of Strength Training and Fitness III	0.5-2
KNACT-146D Theory and Practice of Strength Training and Fitness IV.....	0.5-2
KNACT-148A Beginning Power Lifting.....	0.5-2

<i>plus at least 2 units from:</i>	
KNACT-110A Beginning Hatha Yoga	0.5-2
KNACT-110B Intermediate Hatha Yoga	0.5-2
KNACT-110C Advanced Hatha Yoga	0.5-2
KNACT-114A Beginning Stretch and Yoga for Sports.....	0.5-2
KNACT-114B Intermediate Stretch and Yoga for Sports.....	0.5-2
KNACT-120 Physical Fitness	0.5-2
KNACT-122A Beginning Body Sculpt	0.5-2
KNACT-124A Beginning Hips, Thighs and Abs	0.5-2
KNACT-124B Intermediate Hips, Thighs and Abs	0.5-2
KNACT-126 Aerobics/Step Aerobics.....	0.5-2
KNACT-128A Beginning Cardio Kickboxing	0.5-2
KNACT-128B Intermediate Cardio Kickboxing	0.5-2
KNACT-140 Stationary Cycling.....	0.5-2
KNACT-142A Beginning Boot Camp.....	0.5-2
KNACT-144A Beginning Super Circuit.....	0.5-2
KNACT-144B Intermediate Super Circuit.....	0.5-2
KNDAN-105A Pilates Mat Work I	0.5-2

total minimum units for the major 41.5

<i>recommended courses:</i>		<i>units</i>
BUSMG-191 Small Business Management		3
KINES-210 Introduction to Kinesiology.....		3
KINES-230 Overview of Sports Medicine and Fitness Professions.....		2
KINES-232 Introduction to Sports Massage.....		1.5
KINES-235 Advanced Sports Medicine and Athletic Training		3
KINES-256 Theory and Practice of Performance Exercise Training and Exam Prep.....		2
KINES-257 Theory and Practice of Corrective Exercise Training and Exam Prep.....		2
KINES-258 Personal Training National Examination Preparation.....		2

**Associate in science degree
Kinesiology**

Students completing the program (coaching emphasis) will be able to...

- A. develop practice plans, analyze strategy and teach techniques specific to a chosen sport.
- B. incorporate concepts of an athlete’s psychological and physical health to improve performance.
- C. Develop an educational and career plan matched to their skills, aptitudes, and professional requirements.

Students completing the program (Sports and recreation management) will be able to...

- A. compare and contrast career opportunities within the sports management and kinesiology sectors.
- B. apply management and organizational techniques to the sports and recreation setting.
- C. design individual components sports management programs.
- D. describe basic principles of kinesiology.
- E. utilize these disciplines in completing a transfer degree pathway.

The associate in science degree in kinesiology offers students two areas of specialization from which to choose: sport and recreation management or coaching. The degree is a two-year course of study designed for students who are interested in a career as an athletic coach and/or preparing for an entry level job in sports or recreation administration at a wide variety of businesses such as fitness centers, spas and wellness centers, recreational facilities, etc.

While most of the kinesiology major requirements are transferable and many meet prerequisites required in associate majors, this degree is not designed as a transfer curriculum. Students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to four-year institutions of their choice are met. Possible programs of study at the baccalaureate level include pursuit of a teaching credential to become a secondary school teacher/coach, or exercise science, sports management or other specialty area related to the discipline of kinesiology. Students who intend to transfer are advised to select General Education Option 2 (IGETC) or Option 3 (CSU GE). Option 1 (DVC General Education) is appropriate for students who do not intend to transfer.

To earn this degree, students must complete the core major requirements as indicated and select an area of specialization. Students must complete each course used to meet a major requirement with a “C” grade or higher and complete general education requirements as listed in the catalog. Certain courses may satisfy both major and general education requirements; however the units are only counted once. For this degree a maximum of 15 units may be double-counted.

major requirements:

	<i>units</i>
HSCI-230 Advanced First Aid/CPR	3
KINES-210 Introduction to Kinesiology	3
KINES-234 Introduction to Sports Medicine and Athletic Training	3
KINES-240 Principles of Optimizing Human Performance.....	3
KINES-242 Exercise Techniques and Fitness Assessments	1
KINES-246 Sport and Exercise Psychology.....	3
KINES-248 Sport and Society	3
PSYCH-101 Introduction to Psychology.....	3

plus at least 3 units from:

NUTRI-120 Sports Nutrition: Fueling the Athlete.....	3
NUTRI-160 Nutrition: Science and Applications	3

plus at least 3 units from:

BUS-240 Business Statistics.....	3
MATH-135 College Algebra.....	4
MATH-142 Elementary Statistics with Probability.....	4

plus at least 3 units from:

BIOSC-101 Fundamentals of Biological Science	3
BIOSC-102 Fundamentals of Biological Science with Laboratory	4
BIOSC-116 Human Biology.....	3
BIOSC-139 Human Anatomy.....	5
BIOSC-140 Human Physiology	5

coaching emphasis

plus at least 3 units from:

KINES-260 Theory of Coaching Individual Sports.....	3
KINES-262 Theory of Coaching Team Sports.....	3

*plus at least 2 units from: **

KNACT-100A Beginning Swimming	0.5-2
KNACT-100B Intermediate Swimming	0.5-2
KNACT-160A Beginning Badminton.....	0.5-2
KNACT-160B Intermediate Badminton	0.5-2
KNACT-164A Beginning Golf	0.5-2
KNACT-164B Intermediate Golf.....	0.5-2
KNACT-166A Beginning Tennis	0.5-2
KNACT-170A Beginning Basketball	0.5-2
KNACT-170B Intermediate Basketball	0.5-2
KNACT-174A Beginning Men’s Lacrosse	0.5-2
KNACT-174B Intermediate Men’s Lacrosse	0.5-2
KNACT-176A Beginning Soccer.....	0.5-2
KNACT-176B Intermediate Soccer	0.5-2
KNACT-182A Beginning Volleyball	0.5-2
KNACT-182B Intermediate Volleyball.....	0.5-2
KNACT-182C Advanced Volleyball	0.5-2
KNACT-195A Beginning Plyometrics and Agility Training for Female Athletes	0.25-1
KNACT-195B Intermediate Plyometrics and Agility Training for Female Athletes	0.25-1
KNACT-195C Advanced Plyometrics and Agility Training for Female Athletes	0.25-1

or at least 2 units from:

KNICA-199	Sport-Specific Athletic Conditioning.....	0.5-2
KNICA-200	Intercollegiate Baseball, Men.....	3
KNICA-202A	Intercollegiate Basketball-A, Men	2
KNICA-202B	Intercollegiate Basketball-B, Men	1
KNICA-203A	Intercollegiate Basketball-A, Women	2
KNICA-203B	Intercollegiate Basketball-B, Women	1
KNICA-206	Intercollegiate Football, Men	3
KNICA-210	Intercollegiate Soccer, Women	3
KNICA-215	Intercollegiate Softball, Women	3
KNICA-216	Intercollegiate Swimming and Diving, Men	3
KNICA-217	Intercollegiate Swimming and Diving, Women	3
KNICA-223	Intercollegiate Volleyball, Women	3
KNICA-224	Intercollegiate Water Polo, Men	3
KNICA-225	Intercollegiate Water Polo, Women	3

* activity course or intercollegiate athletic participation must be selected in area of coaching emphasis

total minimum units for the major 36

sport and recreation management emphasis

<i>required courses:</i>		<i>units</i>
KINES-220	Introduction to Sport and Recreation Management	3
KINES-222	Practical Experience in Sport and Recreation Management I	4
KINES-223	Practical Experience in Sport and Recreation Management II	4

plus a least 2 units from:

KNACT-100A	Beginning Swimming	0.5-2
KNACT-100B	Intermediate Swimming	0.5-2
KNACT-160A	Beginning Badminton.....	0.5-2
KNACT-160B	Intermediate Badminton	0.5-2
KNACT-164A	Beginning Golf	0.5-2
KNACT-164B	Intermediate Golf.....	0.5-2
KNACT-166A	Beginning Tennis	0.5-2
KNACT-170A	Beginning Basketball	0.5-2
KNACT-170B	Intermediate Basketball	0.5-2
KNACT-174A	Beginning Men’s Lacrosse	0.5-2
KNACT-174B	Intermediate Men’s Lacrosse	0.5-2
KNACT-176A	Beginning Soccer.....	0.5-2
KNACT-176B	Intermediate Soccer	0.5-2
KNACT-182A	Beginning Volleyball	0.5-2
KNACT-182B	Intermediate Volleyball.....	0.5-2
KNACT-182C	Advanced =Volleyball	0.5-2
KNACT-195A	Beginning Plyometrics and Agility Training for Female Athletes	0.25-1
KNACT-195B	Intermediate Plyometrics and Agility Training for Female Athletes	0.25-1
KNACT-195C	Advanced Plyometrics and Agility Training for Female Athletes	0.25-1

total minimum units for the major 44

recommended degree electives:

BIOSC-140	Human Physiology	5
KINES-230	Overview of Sports Medicine and Fitness Professions.....	2

**Associate in science degree
Sports medicine/athletic training**

Students completing the program will be able to...

- A. differentiate between a variety of anatomical structures and related technology.
- B. utilize injury evaluation, treatment, rehabilitation and massage techniques.
- C. develop an educational and career plan matched to their skills, aptitudes, and professional requirements.

The associate in science degree in sports medicine/athletic training program is a two-year course of study designed for students interested in becoming allied health care professionals such as athletic trainers or physical therapists. It combines academic, laboratory and clinical experience to prepare students for further study or to obtain employment as an entry-level rehabilitation/allied health paraprofessional. Earning this degree may facilitate the student’s transfer to a four-year college and/or professional program.

DVC Sports medicine/athletic training students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to four-year institutions of their choice are met. Students who intend to transfer are advised to select either General Education Option 2 (IGETC) or Option 3 (CSU GE). General Education Option 1 (DVC General Education) is appropriate for students who do not intend to transfer.

Students must complete each course used to meet a major requirement with a “C” grade or higher, maintain an overall GPA of 2.75 or higher and complete general education requirements as listed in the catalog. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

<i>major requirements:</i>		<i>units</i>
BIOSC-139	Human Anatomy.....	5
KINES-230	Overview of Sports Medicine and Fitness Professions.....	2
KINES-232	Introduction to Sports Massage	1.5
KINES-234	Introduction to Sports Medicine and Athletic Training	3
KINES-235	Advanced Sports Medicine and Athletic Training	3
KINES-236	Clinical Experiences in Sports Medicine and Athletic Training I.....	2
KINES-237	Clinical Experiences in Sports Medicine and Athletic Training II.....	2
KINES-238	Clinical Experiences in Sports Medicine and Athletic Training III	2
KINES-239	Clinical Experiences in Sports Medicine and Athletic Training IV	2
KINES-240	Principles of Optimizing Human Performance.....	3
KINES-242	Exercise Techniques and Fitness Assessments	1
KINES-248	Sport and Society	3
PSYCH-101	Introduction to Psychology.....	3

plus at least 3 units from:

CHEM-107	Integrated Inorganic, Organic, and Biological Chemistry	5
CHEM-108	Introductory Chemistry	4
CHEM-109	Introduction to Organic and Biochemistry	4
CHEM-120	General College Chemistry I	5
PHYS-110	Elementary Physics	3
PHYS-120	General College Physics I	4

plus at least 3 units from:

BIOSC-140	Human Physiology	5
HSCI-124	Health and Wellness	3

plus at least 3 units from:

BIOSC-101	Fundamentals of Biological Science	3
BIOSC-102	Fundamentals of Biological Science with Laboratory	4
BIOSC-130	Principles of Cellular and Molecular Biology	5
HSCI-230	Advanced First Aid/CPR	3
KINES-210	Introduction to Kinesiology	3
KINES-246	Sport and Exercise Psychology	3
NUTRI-160	Nutrition: Science and Applications	3

total minimum units for the major 41.5

Certificate of achievement Coaching

Students completing the program will be able to...

- A. develop practice plans, analyze strategy and teach techniques specific to a chosen sport.
- B. incorporate concepts of an athlete’s psychological and physical health to improve performance.
- C. develop an educational and career plan matched to their skills, aptitudes, and professional requirements.

The coaching certificate of achievement is a one-year course of study that prepares students to be an effective recreational, youth or secondary school coach. Specific sport options offered include baseball, basketball, cross-country, football, soccer, softball, swimming, tennis, track and field, volleyball and water polo. To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a “C” grade or higher.

required courses: units

HSCI-230	Advanced First Aid/CPR	3
KINES-234	Introduction to Sports Medicine and Athletic Training	3
KINES-240	Principles of Optimizing Human Performance	3
KINES-242	Exercise Techniques and Fitness Assessments	1
KINES-246	Sport and Exercise Psychology	3

plus at least 3 units from:

NUTRI-120	Sports Nutrition: Fueling the Athlete	3
NUTRI-160	Nutrition: Science and Applications	3

plus at least 3 units from:

KINES-260	Theory of Coaching Individual Sports	3
KINES-262	Theory of Coaching Team Sports	3

plus at least 2 units from: *

KNACT-100A	Beginning Swimming	0.5-2
KNACT-100B	Intermediate Swimming	0.5-2
KNACT-160A	Beginning Badminton	0.5-2
KNACT-160B	Intermediate Badminton	0.5-2
KNACT-164A	Beginning Golf	0.5-2
KNACT-164B	Intermediate Golf	0.5-2
KNACT-166A	Beginning Tennis	0.5-2
KNACT-170A	Beginning Basketball	0.5-2
KNACT-170B	Intermediate Basketball	0.5-2
KNACT-174A	Beginning Men’s Lacrosse	0.5-2
KNACT-174B	Intermediate Men’s Lacrosse	0.5-2
KNACT-176A	Beginning Soccer	0.5-2
KNACT-176B	Intermediate Soccer	0.5-2
KNACT-182A	Beginning Volleyball	0.5-2
KNACT-182B	Intermediate Volleyball	0.5-2
KNACT-182C	Advanced Volleyball	0.5-2
KNACT-195A	Beginning Plyometrics and Agility Training for Female Athletes	0.25-1
KNACT-195B	Intermediate Plyometrics and Agility Training for Female Athletes	0.25-1
KNACT-195C	Advanced Plyometrics and Agility Training for Female Athletes	0.25-1

or at least 2 units from:

KNICA-199	Sport-Specific Athletic Conditioning	0.5-2
KNICA-200	Intercollegiate Baseball, Men	3
KNICA-202A	Intercollegiate Basketball-A, Men	2
KNICA-202B	Intercollegiate Basketball-B, Men	1
KNICA-203A	Intercollegiate Basketball-A, Women	2
KNICA-203B	Intercollegiate Basketball-B, Women	1
KNICA-206	Intercollegiate Football, Men	3
KNICA-210	Intercollegiate Soccer, Women	3
KNICA-215	Intercollegiate Softball, Women	3
KNICA-216	Intercollegiate Swimming and Diving, Men	3
KNICA-217	Intercollegiate Swimming and Diving, Women	3
KNICA-223	Intercollegiate Volleyball, Women	3
KNICA-224	Intercollegiate Water Polo, Men	3
KNICA-225	Intercollegiate Water Polo, Women	3

*Activity courses or intercollegiate athletic participation must be in the selected area of coaching emphasis.

total minimum required units 21

Certificate of achievement Personal training

Students completing the program will be able to...

- A. conduct assessment of personal fitness levels.
- B. develop a conditioning program to improve conditioning levels utilizing the periodization model.
- C. design a conditioning program to meet the unique needs of special populations.

The personal training certificate program is a one-year course of study that will expose students to many facets of the fitness industry and prepares them to obtain entry-level employment as a personal trainer. Completion of the certificate requirements will also prepare students to sit for national personal training examinations.

To earn a certificate of achievement, a student must complete each course used to meet a certificate requirement with a grade of “C” or higher. Courses are available in the day and evening.

Kinesiology

<i>required courses:</i>	<i>units</i>
HSCI-230 Advanced First Aid/CPR	3
KINES-234 Introduction to Sports Medicine and Athletic Training.....	3
KINES-240 Principles of Optimizing Human Performance.....	3
KINES-242 Exercise Techniques and Fitness Assessments	1
KINES-246 Sport and Exercise Psychology.....	3
KINES-250 Professional Aspects of Personal Training and Fitness Instruction.....	3
KINES-252 Professional Aspects of Group Personal Training	1.5
KINES-254 Practical Experience in Personal Training I	4
KINES-255 Practical Experience in Personal Training II	4
<i>plus at least 3 units from:</i>	
NUTRI-115 Nutrition and Health: Personal Applications	3
NUTRI-120 Sports Nutrition: Fueling the Athlete.....	3
NUTRI-160 Nutrition: Science and Applications	3
<i>plus at least 1 unit from:</i>	
KNACT-146A Theory and Practice of Strength Training and Fitness I	0.5-2
KNACT-146B Theory and Practice of Strength Training and Fitness II	0.5-2
KNACT-146C Theory and Practice of Strength Training and Fitness III	0.5-2
KNACT-146D Theory and Practice of Strength Training and Fitness IV	0.5-2
KNACT-148A Beginning Power Training	0.5-2
<i>plus at least 1 unit from:</i>	
KNACT-110A Beginning Hatha Yoga	0.5-2
KNACT-110B Intermediate Hatha Yoga	0.5-2
KNACT-110C Advanced Hatha Yoga	0.5-2
KNACT-114A Beginning Stretch and Yoga for Sports....	0.5-2
KNACT-114B Intermediate Stretch and Yoga for Sports.....	0.5-2
KNACT-120 Physical Fitness	0.5-2
KNACT-122A Beginning Body Sculpt	0.5-2
KNACT-124A Beginning Hips, Thighs and Abs	0.5-2
KNACT-124B Intermediate Hips, Thighs and Abs	0.5-2
KNACT-126 Aerobics/Step Aerobics.....	0.5-2
KNACT-128A Beginning Cardio Kickboxing.....	0.5-2
KNACT-128B Intermediate Cardio Kickboxing.....	0.5-2
KNACT-140 Stationary Cycling.....	0.5-2
KNACT-142A Beginning Boot Camp.....	0.5-2
KNACT-144A Beginning Super Circuit.....	0.5-2
KNACT-144B Intermediate Super Circuit.....	0.5-2
KNDAN-105A Pilates Mat Work I	0.5-2
total minimum required units	30.5

KINES-100 Fitness and Wellness

1 unit SC

- 18 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents the physiological, psychological and sociological aspects of wellness. Principles of fitness, wellness and health promotion will be covered. CSU, UC (credit limits may apply to UC - see counselor)

KINES-150 Topics in Kinesiology Theory

.3-4 units SC

- Variable hours

A supplemental course in physical education theory to provide a study of topics not covered in other courses or to address current developments in the field. Specific topics to be announced in the schedule of classes. CSU

KINES-210 Introduction to Kinesiology

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This is an introductory course that surveys various subdisciplines related to the study of human movement. Students will examine the areas of history, sociology, biomechanics, physiology, and psychology, as they relate to the sport and exercise environment. In addition, students will explore three career pathways involving the study of human movement; teaching, research, and professional practice. The course also introduces students to the concepts and skills of locating, evaluating, synthesizing, and communicating information in various formats. C-ID KIN 100, CSU, UC (credit limits may apply to UC - see counselor)

KINES-220 Introduction to Sport and Recreation Management

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This is an introductory course in sport and recreation management. Students will examine the history and development of the profession, discover and evaluate a variety of career opportunities, discuss organizational and managerial strategies, and analyze current trends in sport and recreation management. CSU

KINES-222 Practical Experience in Sport and Recreation Management I

4 units SC

- 36 hours lecture/108 hours laboratory by arrangement per term
- Recommended: KINES-220 or equivalent

This is an internship course that will expose students to the practical application and responsibilities within the field of sport and recreation management. They will have the opportunity to assist within the Diablo Valley College Kinesiology, Athletics, and Dance Department on a variety of projects including marketing, game management, website management, sports information, fundraising, and/or scheduling. CSU

KINES-223 Practical Experience in Sport and Recreation Management II

4 units SC

- 36 hours lecture/108 hours laboratory by arrangement per term
- Prerequisite: KINES-222 or equivalent

This is an internship course that continues to enhance students' skills and practical experiences within the field of sport and recreation management. Students will participate in creating and implementing projects within the Diablo Valley College Kinesiology, Athletics, and Dance Department. Topics for projects include, but are not limited to, marketing, game management, website management, sports information, fundraising, and/or scheduling. CSU

KINES-230 Overview of Sports Medicine and Fitness Professions

2 units SC

- 36 hours lecture per term

This course will acquaint students with a variety of sports medicine, fitness and health care professions. Information presented will include job descriptions, educational and certification/licensure requirements, work environment and potential salary ranges. CSU

KINES-232 Introduction to Sports Massage

1.5 units SC

- 18 hours lecture/27 hours laboratory per term

This course will present the theory and practice of massage and its role in treating and preventing athletic injuries as well as preparing athletes for competition. Students will apply and experience the application of a variety of massage, stretching and relaxation techniques. CSU

KINES-234 Introduction to Sports Medicine and Athletic Training

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course will provide the future coach, athletic trainer and other health care providers with the basic theoretical knowledge and practical skills necessary for the proper and effective management of common injuries. The students will also develop the ability to recognize these injuries, manage emergency situations and apply preventative taping. CSU, UC (credit limits may apply to UC - see counselor)

KINES-235 Advanced Sports Medicine and Athletic Training

3 units SC

- 36 hours lecture/54 hours laboratory per term
- Prerequisite: KINES-234 or equivalent

This course builds on concepts from KINES-234. It will introduce the student to the theoretical knowledge and practical skills necessary to evaluate and rehabilitate injuries. The medical and surgical management of injuries will also be discussed in presentations by orthopedic surgeons and podiatrists. CSU

KINES-236 Clinical Experiences in Sports Medicine and Athletic Training I

2 units SC

- 108 hours laboratory by arrangement per term
- Prerequisite: KINES-234 or completion of one year high school ROP sports medicine or equivalent

This course will expose students to basic injury prevention and care. The student will observe and assist athletic trainers in administering health care to the DVC athletes. Skills to be learned and performed include prophylactic taping and wrapping, immediate injury management and modality application. CSU

KINES-237 Clinical Experiences in Sports Medicine and Athletic Training II

2 units SC

- 108 hours laboratory by arrangement per term
- Prerequisite: KINES-235 (may be taken concurrently) and KINES-236 or equivalents

This course will expose students to injury evaluation and career exploration in the area of sports medicine. Students will observe and assist athletic trainers in evaluating and treating DVC athletes. This may be augmented by off-campus observations of physicians and/or other health care providers. CSU

KINES-238 Clinical Experiences in Sports Medicine and Athletic Training III

2 units SC

- 108 hours laboratory by arrangement per term
- Prerequisite: KINES-237 or equivalent

This course will expose the student to advanced athletic injury evaluation and anatomy. The emphasis in this course will be problem solving and professional development. The student will observe and assist athletic trainers in evaluating and rehabilitating DVC student athletes. This may be augmented by off-campus observations of surgery. CSU

KINES-239 Clinical Experiences in Sports Medicine and Athletic Training IV

2 units SC

- 108 hours laboratory by arrangement per term
- Prerequisite: KINES-238 or equivalent

This course will expose the student to advanced injury rehabilitation principles and clinical intervention techniques. The emphasis in this course will be problem solving and professional development. Students will observe and assist athletic trainers in evaluating and rehabilitating DVC student athletes. This may be augmented by off-campus observations of surgery. CSU

KINES-240 Principles of Optimizing Human Performance

- 3 units SC
- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course explores the body's adaptations to exercise and teaches students how to develop fitness programs to maximize these strength and conditioning adaptations. The information presented is valuable for students interested in professions such as personal training, physical therapy, athletic training/sports medicine, teaching and coaching, as well as for people who just want to improve their own fitness level or athletic performance. This knowledge will also prepare students intending to sit for national personal training exams. CSU, UC (credit limits may apply to UC - see counselor)

KINES-242 Exercise Techniques and Fitness Assessments

- 1 unit SC
- 54 hours laboratory per term
- Recommended: KINES-240 or equivalent (may be taken concurrently)

This course is a companion laboratory course to KINES-240. Students will practice the instruction of proper techniques of strength training and fitness conditioning. Students will also conduct fitness assessments to determine fitness levels and evaluate progress in exercise programs. These skills will assist students who plan to sit for a national personal training or athletic training examination. CSU, UC (credit limits may apply to UC - see counselor)

KINES-246 Sport and Exercise Psychology

- 3 units SC
- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course addresses the scientific approach to the psychological component of sport and exercise performance. Topics such as personality, motivation, group dynamics, and leadership will be covered. Specific psychological skills training methods for enhancing performance will be discussed. In addition, the connection between sport and exercise participation to health, wellness and psychological development will be addressed. CSU

KINES-248 Sport and Society

- 3 units SC
- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is intended to develop an understanding and recognition of the many ways sport and society interact and affect one another. The process of socialization as well as the roles of violence, gender, race, media, and politics within the realm of sport will be examined. Considerations of pertinent current events and scholarly journal articles will enhance students' understanding of the topics addressed. CSU, UC

KINES-250 Professional Aspects of Personal Training

- 3 units SC
- 54 hours lecture per term
- Recommended: KINES-240 or equivalent

This course is for students who are, or aspire to be, personal trainers. It will provide practical information on how to become nationally certified as a personal trainer, effectively work with clients, including those within special populations, conduct assessments and create appropriate fitness program design. CSU

KINES-252 Professional Aspects of Group Personal Training

- 1.5 units SC
- 18 hours lecture/27 hours laboratory per term
- Recommended: KINES-240 or equivalent

This course prepares the potential personal trainer and group exercise instructor for the practical aspects of training and managing clients in a small group fitness/strength training setting. Principles and management of appropriate progression, regression and modification will be emphasized. Program design, exercise sequencing, training variables, use of strength equipment/modalities and practical teaching skills will be included. CSU

KINES-254 Practical Experience in Personal Training and Fitness Instruction I

- 4 units SC
- 36 hours lecture/108 hours laboratory by arrangement per term
- Prerequisite: KINES-240 (may be taken concurrently) or equivalent

This is an internship course that will expose students to the practical application and responsibilities of personal training through the observation and assistance of a fitness professional. Students will observe and conduct assessments on clients for fitness programs and program design development. Also included will be the observation of the adaptation/adjustment (appropriate progressions/regressions) of fitness program specifics to meet the changing needs of the client's fitness level and risk factor management and development of long and short term fitness goals. CSU

KINES-255 Practical Experience in Personal Training and Fitness Instruction II

- 4 units SC
- 36 hours lecture/108 hours laboratory by arrangement per term
- Prerequisite: KINES-240 (may be taken concurrently) and KINES-250 (may be taken concurrently) or equivalents

This is an internship course that will expose students to the practical application and responsibilities of personal training. Students will perform assessments on individuals for fitness programs, prepare and execute fitness programs, adapt and adjust fitness program specifics to meet the changing needs of the client's fitness level and risk factor management, as well as assist other entry students (mentoring) in the development of long and short term fitness goals and appropriate program design. CSU

KINES-256 Theory and Practice of Performance Exercise Training and Exam Prep.

2 units SC

- 36 hours lecture per term
- Recommended: KINES-240 and KINES-250 or equivalents

This course is for personal trainers, athletic trainers and coaches to advance their knowledge in the area of performance exercise. Emphasis will be on the theory of, assessment techniques for and corrective strategies for improving human performance. Students may be able to earn continuing education units (CEUs) and/or sit for a national examination in performance exercise. CSU

KINES-257 Theory and Practice of Corrective Exercise Training and Exam Prep.

2 units SC

- 36 hours lecture per term
- Recommended: KINES-240 and KINES-250 or equivalents

This course is for personal trainers, athletic trainers, and coaches to advance their knowledge in the area of corrective exercise. Emphasis will be on the theory of, assessment techniques for and corrective strategies for human movement. Students may be able to earn continuing education units (CEUs) and/or sit for a national examination in corrective exercise. CSU

KINES-258 Personal Training National Exam Preparation

2 units SC

- 36 hours lecture per term
- Recommended: KINES-250 or equivalent

This course is designed to provide students with the information necessary to sit for a National Personal Training Exam. The course will expand upon information presented in other personal training courses within the program to emphasize knowledge required for passing these exams. CSU

KINES-260 Theory of Coaching Individual Sports

3 units SC

- 54 hours lecture per term

This course is designed to provide students with an understanding of all facets of coaching individual sports. Topics will include methods of instruction, practice design, mental preparation, and program building. This course is appropriate for those looking for a career in coaching, current youth coaches and the athlete wanting to increase their knowledge of the sport. No previous coaching experience is necessary. CSU, UC (credit limits may apply to UC - see counselor)

KINES-262 Theory of Coaching Team Sports

3 units SC

- 54 hours lecture per term

This course is designed to provide students with an understanding of all facets of coaching team sports. Topics will include methods of instruction, practice design, mental preparation, and program building. This course is appropriate for those looking for a career in coaching, current youth coaches and the athlete wanting to increase their knowledge of the sport. No previous coaching experience is necessary. CSU, UC (credit limits may apply to UC - see counselor)

KINES-265 Theory and Strategies of American Football Offense

2 units SC

- 36 hours lecture per term

This course presents an overview of the strategies and techniques of American football offense. Topics include terminology, rules, strategies, mental preparation, skills, and methods of implementing the offense. CSU, UC (credit limitations may apply to UC - see counselor)

KINES-266 Theory and Strategies of American Football Defense

2 units SC

- 36 hours lecture per term

This course presents an overview of the strategies and techniques of American football defense. Topics include terminology, rules, strategies, mental preparation, skills, and methods of implementing the defense. CSU, UC (credit limitations may apply to UC - see counselor)

KINES-295 Occupational Work Experience Education in KINES

1-4 units SC

- May be repeated three times
- Variable hours
- Note: In order to enroll in KINES-295, students must be employed, register for the course, complete an online Employment Form, and participate in an orientation. Employment Form can be accessed at www.dvc.edu/wrwx. Incomplete grades are not awarded for this course.

KINES-295 is supervised employment that extends classroom learning to the job site and relates to the student's chosen field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Five hours work per week or seventy-five hours work per term is equal to one unit. Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

KINES-298 Independent Study

- .5-3 units SC
- Variable hours
- Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

KINES-299 Student Instructional Assistant

- .5-3 units SC
- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

KINESIOLOGY ACTIVITY – KNACT

Christine Worsley, Dean
 Kinesiology, Athletics and Dance Division
 Kinesiology Office Building, Room 104

Limitations on enrollment

Effective fall term 2013, changes to the regulations that govern community college enrollments placed limitations on the number of courses that students may take in certain disciplines within the Contra Costa Community College District. The charts below indicate which Diablo Valley College (DVC) courses are assigned to groups of courses (“families”) for which limitations have been imposed. Certain courses within certain “families” may be repeated (see catalog description), however, students are limited to four enrollments within the family. Certain DVC courses are equivalent to courses at Los Medanos College and Contra Costa College. An enrollment in an equivalent course at one of those colleges will count toward the allowable four enrollments within the family.

NOTE: Diablo Valley College may offer experimental or topics courses. When appropriate, based on content, such courses will be assigned to a “family” and that enrollment will be counted as an experience within the “family”.

KINESIOLOGY

Family: Swimming

- KNACT-100A Beginning Swimming
- KNACT-100B Intermediate Swimming

Family: Yoga

- KNACT-110A Beginning Hatha Yoga
- KNACT-110B Intermediate Hatha Yoga
- KNACT-110C Advanced Hatha Yoga
- KNACT-114A Beginning Stretch and Yoga for Sports
- KNACT-114B Intermediate Stretch and Yoga for Sports

Family: Walking/jogging

- KNACT-130A Beginning Fitness Walking
- KNACT-130B Intermediate Fitness Walking
- KNACT-132 Hiking
- KNACT-134A Beginning Fitness Jogging
- KNACT-134B Intermediate Fitness Jogging
- KNACT-136 Distance Track Training

Family: Aerobics

- KNACT-102A Beginning Aquatic Fitness
- KNACT-102B Intermediate Aquatic Fitness
- KNACT-104 Water Aerobics
- KNACT-120 Physical Fitness
- KNACT-125 Zumba
- KNACT-126 Aerobics/Step Aerobics
- KNACT-128A Beginning Cardio Kickboxing
- KNACT-128B Intermediate Cardio Kickboxing
- KNACT-140 Stationary Cycling
- KNACT-142A Beginning Boot Camp
- KNACT-144A Beginning Super Circuit
- KNACT-144B Intermediate Super Circuit
- KNACT-150A Zumba
- KNACT-150E Boot Camp

Family: Core

- KNACT-122A Beginning Body Sculpt
- KNACT-122B Intermediate Body Sculpt
- KNACT-124A Beginning Hips, Thighs and Abs
- KNACT-124B Intermediate Hips, Thighs and Abs
- KNDAN-105A Pilates Mat Work I
- KNDAN-105B Pilates Mat Work II

Family: Sport specific conditioning

- KNACT-150C Advanced Plyometrics and Agility Training for Female Athletes
- KNACT-195A Beginning Plyometrics and Agility Training for Female Athletes
- KNACT-195B Intermediate Plyometrics and Agility Training for Female Athletes
- KNACT-195C Advanced Plyometrics and Agility Training for Female Athletes

Family: Resistance

- KNACT-146A Theory and Practice of Strength Training and Fitness I
 KNACT-146B Theory and Practice of Strength Training and Fitness II
 KNACT-146C Theory and Practice of Strength Training and Fitness III
 KNACT-146D Theory and Practice of Strength Training and Fitness IV
 KNACT-148A Beginning Power Lifting
 KNACT-148B Intermediate Power Lifting

Family: Golf

- KNACT-164A Beginning Golf
 KNACT-164B Intermediate Golf

Family: Tennis

- KNACT-150B Intermediate Tennis
 KNACT-166A Beginning Tennis
 KNACT-166B Intermediate Tennis

Family: Badminton

- KNACT-160A Beginning Badminton
 KNACT-160B Intermediate Badminton

Family: Bowling

- KNACT-162 Bowling

Family: Basketball

- KNACT-170A Beginning Basketball
 KNACT-170B Intermediate Basketball

Family: Football

- KNACT-172 Flag Football

Family: Lacrosse

- KNACT-150D Intermediate Lacrosse
 KNACT-174A Beginning Men's Lacrosse
 KNACT-174B Intermediate Men's Lacrosse

Family: Soccer

- KNACT-176A Beginning Soccer
 KNACT-176B Intermediate Soccer
 KNACT-178A Beginning Indoor Soccer
 KNACT-178B Intermediate Indoor Soccer

Family: Volleyball

- KNACT-182A Beginning Volleyball
 KNACT-182B Intermediate Volleyball
 KNACT-182C Advanced Volleyball
 KNACT-184A Beginning Beach Volleyball

KNACT-100A Beginning Swimming

- .5-2 units SC
 • *Variable hours*

This is an activity course designed to teach beginning level skill of swimming. Correct swimming technique for the freestyle and backstroke strokes will be emphasized. Instruction will also address personal swimming safety, swimming strength development, and health and fitness improvement through swimming. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-100B Intermediate Swimming

- .5-2 units SC
 • *Variable hours*

This is an activity course designed to teach intermediate level swimming skills. Correct swimming techniques for all four competitive swim strokes (freestyle, backstroke, breaststroke and butterfly) will be emphasized. Instruction will also include techniques of survival floating and the relationship between swimming and overall health and wellness. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-102A Beginning Aquatic Fitness

- .5-2 units SC
 • *Variable hours*
 • *Recommended: KNACT-100A or equivalent*

This is an activity course designed to introduce students to the development of cardiovascular fitness and muscular strength through swimming workouts. Freestyle and backstroke strokes will be performed and utilized within both aerobic (long distance) and anaerobic (sprint distance) style fitness programs. Students will improve cardiovascular conditioning, upper and lower body muscular strength and core strength. Students will also gain knowledge in assessing fitness improvement through swimming participation. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-102B Intermediate Aquatic Fitness

- .5-2 units SC
 • *Variable hours*
 • *Recommended: KNACT-102A or equivalent*

This is an activity course designed to develop an intermediate level of cardiovascular fitness and muscular strength through swimming workouts. All four competitive strokes (freestyle, backstroke, breaststroke and butterfly) will be performed and utilized within both aerobic (long distance) and anaerobic (sprint distance) style fitness programs. Students will improve cardiovascular conditioning, upper and lower body muscular strength and core strength. Students will apply their knowledge of swimming fitness assessment and training principles to the development of a personal swimming fitness program. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-104 Water Aerobics

- .5-2 units SC
- Variable hours

This is an activity course designed to improve muscular strength, flexibility and cardiovascular fitness, while reducing stress on the body by performing exercises in the water. Exercises will involve variations in movement and tempo to achieve fitness improvements. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-110A Beginning Hatha Yoga

- .5-2 units SC
- Variable hours

This is a beginning level activity course exploring the principles of Hatha Yoga and how they apply to achieving lifetime fitness. It incorporates yoga postures (asanas) designed to strengthen and tone the body. Breathing exercises, relaxation and meditation techniques are learned and practiced throughout the course. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-110B Intermediate Hatha Yoga

- .5-2 units SC
- Variable hours

This is an intermediate level activity course that emphasizes intense stretching, balancing, and building of muscular strength through yoga practice. A series of poses and breathing techniques will be practiced in order to create a more challenging yoga experience. Proper posture, relaxation and meditation techniques, as well as principles of healthy living, will be demonstrated and discussed throughout the course. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-110C Advanced Hatha Yoga

- .5-2 units SC
- Variable hours

This is an advanced level activity course that incorporates Hatha Yoga principles and practices with students' physical and emotional needs resulting in a more integrated understanding of the benefits of yoga. Various meditation and yoga styles will be studied, practiced and analyzed. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-114A Beginning Stretch and Yoga for Sports

- .5-2 units SC
- Variable hours

This is a beginning level activity course introducing principles of yoga asanas, stretch and relaxation techniques, as related to a particular sport or activity. Students will practice beginning level warm-up activities, flexibility and stretching exercises, for the primary purpose of preventing injury in their particular sport/activity. Students will learn methods for measuring changes in flexibility and alignment. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-114B Intermediate Stretch and Yoga for Sports

- .5-2 units SC
- Variable hours

This is a course presenting intermediate principles of stretch technique, intermediate yoga asanas, and imagery techniques, as related to a particular sport or activity. Students will participate in intermediate level warm-up activities, intermediate flexibility and strengthening exercises, and injury prevention methods, with the goal of enhancing sport/activity performance. Students will utilize flexibility and alignment measurements for the development of an individualized stretch program. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-120 Physical Fitness

- .5-2 units SC
- Variable hours

This is an activity course designed to improve physical fitness through participation in flexibility routines, resistance training, core strengthening, and cardiovascular exercise. Fitness training that benefits a particular sport or activity, as well as, the benefits of physical fitness as an aspect of overall well-being, are addressed. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-122A Beginning Body Sculpt

- .5-2 units SC
- Variable hours

This is an activity course designed to teach beginning elements of body sculpt. Body sculpt is guided strength training, core stabilization and balance exercises performed to a specific music cadence and designed to improve muscular strength, muscular endurance and flexibility. Introductory technique will be emphasized and basic training elements will be developed. Fitness assessments will be performed and nutritional/wellness topics will also be discussed. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-122B Intermediate Body Sculpt

- .5-2 units SC
- Variable hours

This is an activity course designed to teach intermediate elements of body sculpt. Body sculpt is guided strength training, core stabilization and balance exercises performed to a specific music cadence. This course is designed to improve muscular strength, muscular endurance, balance, body stabilization and flexibility. Intermediate techniques and exercise routines will be developed by students. Fitness assessments will be performed and nutritional/wellness topics will be expanded. Students will keep a journal of their individual exercise routines and nutritional intake. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-124A Beginning Hips, Thighs and Abs

- .5-2 units SC
- *Variable hours*

This is an activity course emphasizing a beginning level of toning and strengthening of the hip, thigh, and abdominal areas. A basic level of anatomy will be included. Various beginning conditioning techniques and modalities will be utilized including, but not limited to, speed walking, body resistance activities and basic use of resistance tubing. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-124B Intermediate Hips, Thighs and Abs

- .5-2 units SC
- *Variable hours*

This is an activity course emphasizing an intermediate level of toning and strengthening of the hip, thigh, and abdominal areas. An intermediate level of muscle tone development and progressive levels of muscle physiology, will be included. A variety of measured conditioning techniques and modalities will be utilized including, but not limited to, running, bender balls, stability balls and Pilates rings. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-125 Zumba

- .5-2 units SC
- *Variable hours*

This is an activity course designed to improve aerobic fitness, muscular endurance and muscular strength by utilizing Zumba dance fitness routines. Zumba is a fitness program that incorporates international music and dance steps. Flexibility training, core strengthening and topics concerning fitness principles and overall well-being will also be incorporated. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-126 Aerobics/Step Aerobics

- .5-2 units SC
- *Variable hours*

This is an activity course designed to improve aerobic cardiorespiratory fitness utilizing a variety of current aerobic fitness training formats including choreographed and non-choreographed floor movement patterns, step training, and aerobic interval training. Muscle endurance, flexibility training, core strengthening and discussion of the science of aerobic fitness will be incorporated. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-128A Beginning Cardio Kickboxing

- .5-2 units SC
- *Variable hours*
- *Note: Ability to participate in vigorous activity is recommended*

This is an activity course that combines fundamental skills and technique from boxing, self defense and various forms of martial arts, such as, Karate and Muay Tai to promote a fun, yet effective and challenging aerobic workout. Jump rope and running will be primary cardiovascular activities. Basic flexibility, strength training, focus mitt training and muscular endurance activities may also be incorporated. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-128B Intermediate Cardio Kickboxing

- .5-2 units SC
- *Variable hours*
- *Note: Ability to participate in vigorous activity is recommended*

This is an activity course that combines intermediate skills and technique from boxing, self defense and various forms of martial arts, such as, Karate and Muay Tai to promote a fun, yet effective and challenging aerobic workout. Jump rope and running will be primary cardiovascular activities. Flexibility, strength training, focus mitt training and muscular endurance activities may also be incorporated. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-130A Beginning Fitness Walking

- .5-2 units SC
- *Variable hours*

This is an activity course intended for students of beginning fitness levels who would like to utilize walking as a fitness enhancing activity. Introductory technique will be emphasized and basic walking programs will be developed. Walking routes begin on campus and explore a multitude of nearby parks and trails. Topics to be discussed include: fitness and health assessment, equipment and safety, walking techniques, motivation, nutrition basics, program design and evaluation. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-130B Intermediate Fitness Walking

- .5-2 units SC
- *Variable hours*

This is an activity course intended for students of intermediate fitness levels who would like to utilize walking as a fitness enhancing activity. Intermediate techniques will include distance, hill, backward, and speed walking. Intermediate walking programs will be developed. Walking routes begin on campus and explore a multitude of nearby parks and trails. Topics to be discussed include: fitness and health assessment, equipment and safety, walking techniques, motivation, nutrition basics, program design, evaluation, Volkssporting and Volksmarching. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-132 Hiking

- .5-2 units SC
- Variable hours

This is an activity course utilizing hiking as a means to improve health and fitness. Hiking and safety skills will be practiced while enjoying the beautiful parks and open spaces of the Bay Area. Hike preparation, map reading, trail marking skills, and the health and fitness benefits of hiking will be addressed. All routes are four to ten miles long at various hiking sites and are often on hilly terrain. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-140 Stationary Cycling

- .5-2 units SC
- Variable hours

This is an activity course using group stationary cycling training to develop cardiovascular fitness. Students will also utilize various strength and flexibility modalities, mental imagery, visualization, nutrition concepts, as well as assessments of their cardiovascular fitness training level through heart rate monitoring and resting heart rate values. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-142A Beginning Boot Camp

- .5-2 units SC
- Variable hours
- Note: Students must be healthy enough to participate in vigorous physical activity.

This is an activity course that incorporates a total body workout with minimal rest in between a given set of exercises. Cardiovascular endurance, core exercises, muscular strength, muscular endurance, body weight exercises, and free weights will be combined to assist students in achieving fitness goals. Flexibility exercises, nutritional information, and fitness principles will also be presented. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-144A Beginning Super Circuit

- .5-2 units SC
- Variable hours

This is an activity course introducing the basic elements of cardiovascular fitness, muscular strength, muscular endurance, and flexibility in a unique and simultaneous combination of aerobic and resistance training exercises in one seamless total fitness workout. Individual health and fitness assessments will be conducted during the semester. Nutrition and other wellness topics will also be included. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-144B Intermediate Super Circuit

- .5-2 units SC
- Variable hours

This is an activity course for intermediate level students participating in a unique and simultaneous combination of aerobic and resistance training exercises in one seamless total fitness workout utilizing elements of cardiovascular fitness, muscular strength, muscular endurance, and flexibility. Individual health and fitness assessments will be conducted during the semester. Nutrition and other wellness topics will also be included. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-146A Theory and Practice of Strength Training and Fitness I

- .5-2 units SC
- Variable hours

This is an activity course designed to increase muscular strength, muscular endurance, and fitness utilizing introductory resistance techniques and equipment training. Endurance training activities will also be included. Students will be instructed on information pertaining to safety, warm-up, and musculoskeletal anatomy. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-146B Theory and Practice of Strength Training and Fitness II

- .5-2 units SC
- Variable hours

This is an activity course designed to increase muscular strength, muscular endurance, and fitness utilizing beginning level strength training techniques, equipment, and endurance training activities. Information on safety, warm-up, anatomy, and basic program design will also be presented. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-146C Theory and Practice of Strength Training and Fitness III

- .5-2 units SC
- Variable hours

This is an activity course designed to increase muscular strength, muscular endurance, and fitness utilizing intermediate level strength training techniques, equipment, and endurance training activities. Students will work toward independent program design and implementation. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-146D Theory and Practice of Strength Training and Fitness IV

- .5-2 units SC
- *Variable hours*

This is an activity course designed to increase muscular strength, muscular endurance, and fitness utilizing advanced level strength training techniques, equipment, and endurance training activities. Students will be expected to design and implement independent programs. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-148A Beginning Power Training

- .5-2 units SC
- *Variable hours*

This is an activity course designed to teach the basic elements of power lifting. Technique will be emphasized and training programs will be developed. The sport of power lifting, as well as safety concerns will also be discussed. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-148B Intermediate Power Training

- .5-2 units SC
- *Variable hours*

This is an activity course designed to teach intermediate elements of power lifting and training. Intermediate-level exercises will be emphasized and program design will be covered. The biomechanics of power training, as well as plyometric training will also be discussed. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-150 Topics in Physical Activity

- .3-4 units SC
- *Variable hours*

This is a supplemental activity course in physical activity to provide a study of current concepts and problems in fitness and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

KNACT-160A Beginning Badminton

- .5-2 units SC
- *Variable hours*

This activity course presents beginning badminton techniques and strategies. Topics include the history, rules, etiquette, equipment, and scoring system of badminton. Students will practice basic stroke techniques and footwork skills. Offensive and defensive positions and fundamental strategies for both singles and doubles play are addressed. No previous badminton experience is necessary. CSU, UC (credit limits may apply to UC-see counselor)

KNACT-160B Intermediate Badminton

- .5-2 units SC
- *Variable hours*

This activity course presents intermediate badminton techniques and strategies and further exploration of the history, rules, etiquette, equipment, and scoring system of badminton. Students will practice intermediate stroke techniques, footwork skills, and knowledge of singles and doubles strategies. Offensive and defensive positions and intermediate tactical strategies for both singles and doubles will also be covered. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-162 Bowling

- .5-2 units SC
- *Variable hours*
- *Note: Mandatory fee required*

This is an activity course that focuses on the basic delivery technique, targeting, and strategy of bowling. Additional topics include equipment, rules, etiquette, terminology and scoring. Students will have the opportunity to practice these techniques as well as participate in class competition. CSU, UC (credit limits may apply to UC-see counselor)

KNACT-164A Beginning Golf

- .5-2 units SC
- *Variable hours*
- *Note: Some class meetings will be held at Buchanan Field Golf Course to utilize their practice facilities*

This is an activity course designed to introduce the game of golf and provide the skill and knowledge necessary to successfully transition to playing golf on a course. Equipment selection will be covered as well as full swing fundamentals, ball flight principles, chipping, pitching and putting. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-164B Intermediate Golf

- .5-2 units SC
- *Variable hours*
- *Recommended: KNACT-164A or equivalent*
- *Note: Mandatory fee required*

This is an activity course focusing on intermediate level golf skills. Topics include the full swing, chipping and putting mechanics, pitching, bunker shots, and uneven lies. Course management strategies and the psychology of golf are also presented. The focus is on playing nine holes of golf. CSU, UC (credit limits may apply to UC-see counselor)

KNACT-166A Beginning Tennis

- .5-2 units SC
- *Variable hours*

This is an activity course intended to introduce students to the game of tennis. Topics include basic stroking methods, conditioning techniques, historical background, rules, scoring, as well as singles and doubles strategies. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-166B Intermediate Tennis

- .5-2 units SC
- Variable hours

This is an activity course focusing on intermediate level skills and strategies of tennis. The emphasis is on skill development for a higher level of performance and utilization of multi-optional tennis strategies. CSU, UC (Credit limits may apply to UC - see counselor)

KNACT-170A Beginning Basketball

- .5-2 units SC
- Variable hours

This activity course presents beginning basketball techniques and strategies. Topics include beginning-level techniques, rules of the full court game and cardiovascular fitness. CSU, UC (credit limits may apply to UC-see counselor)

KNACT-170B Intermediate Basketball

- .5-2 units SC
- Variable hours

This is an activity course in basketball with an emphasis on intermediate-level techniques, rules of the full court game and cardiovascular conditioning. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-172 Flag Football

- .5-2 units SC
- Variable hours

This is an activity course introducing students to the fundamentals of flag football. Rules of the game, safety, offensive and defensive skills, game strategy, and methods of scoring will also be addressed. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-174A Beginning Men's Lacrosse

- .5-2 units SC
- Variable hours

This activity course presents the fundamental skills and strategies of men's lacrosse. This course focuses on the rules, etiquette, safety, considerations of lacrosse and basic lacrosse skills. Offensive and defensive positions and basic team strategies are also addressed. No previous lacrosse experience is necessary. Open to men and women. CSU, UC (credit limits may apply to UC-see counselor)

KNACT-174B Intermediate Men's Lacrosse

- .5-2 units SC
- Variable hours

This activity course presents intermediate skills and strategies of men's lacrosse with further exploration of application of the rules, etiquette, and safety considerations of lacrosse. Intermediate-level offensive and defensive team strategies are presented during the course. Open to men and women. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-176A Beginning Soccer

- .5-2 units SC
- Variable hours

This activity course presents beginning-level skills and strategies of soccer. Topics include rules, etiquette, safety, and technical soccer skills. Offensive and defensive positions and basic team organization are also addressed. CSU, UC (credit limits may apply to UC-see counselor)

KNACT-176B Intermediate Soccer

- .5-2 units SC
- Variable hours

This activity course presents intermediate-level soccer techniques and strategies and further exploration of the rules and technical skills. Intermediate-level offensive and defensive team strategies and positioning are also covered. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-178A Beginning Indoor Soccer

- .5-2 units SC
- Variable

This activity course presents beginning-level indoor soccer skills and strategies. Indoor soccer is a scaled-down version of soccer, involving 5-6 players per team and small goals with no goalkeepers. Topics include the beginning-level rules, etiquette, and safety concerns of indoor soccer, as well as practice of the basic technical skills and strategies of the game. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-178B Intermediate Indoor Soccer

- .5-2 units SC
- Variable hours
- Recommended: KNACT-178A or Equivalent

This is an activity course emphasizing intermediate-level skills and strategies of indoor soccer. Indoor soccer is a scaled-down version of soccer, involving 5-6 players per team and small goals with no goalkeepers. The rules, etiquette and safety concerns of indoor soccer, deception in dribbling and passing, team defending and attacking concepts will be presented and practiced. CSU, UC (credit limits may apply to UC-see counselor)

KNACT-182A Beginning Volleyball

- .5-2 units SC
- Variable hours

This is an activity course focused on beginning volleyball knowledge and skills. Topics include rules, etiquette, safety, and technical volleyball skills. Offensive and defensive positions and basic team organization for non-competitive team play are also addressed. CSU, UC (credit limits may apply to UC-see counselor)

KNACT-182B Intermediate Volleyball

- .5-2 units SC
- Variable hours
- Formerly PE-193

This is an activity course focused on intermediate volleyball knowledge and skills. Topics include intermediate-level volleyball skills and the utilization of multi-optional volleyball strategies. CSU, UC (credit limits may apply to UC-see counselor)

KNACT-182C Advanced Volleyball

- .5-2 units SC
- Variable hours

This is an activity course focused on advanced volleyball knowledge and skills. Topics include analysis, evaluation and performance of complex techniques. Students will also utilize advanced tactical drills and exercises in the development of game strategies and game play. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-184A Beginning Beach Volleyball

- .5-2 units SC
- Variable hours

This is an activity course focused on beginning beach volleyball knowledge and skills. Topics include rules, etiquette, safety, and technical beach volleyball skills. Offensive and defensive positions and basic team organization for non-competitive team play are also addressed. CSU

KNACT-195A Beginning Plyometrics and Agility Training for Female Athletes

- .25-1 unit SC
- Variable hours
- Note: This course is open to all students

This activity course presents beginning-level plyometric and agility training for the female athlete, designed to help improve performance and minimize the potential for injury. Beginning-level training will include plyometric techniques, agility drills, flexibility exercises and core strengthening techniques. Fundamental health and nutritional issues specific to the female athlete will also be addressed. CSU, UC (credit limits may apply to UC-see counselor)

KNACT-195B Intermediate Plyometrics and Agility Training for Female Athletes

- .25-1 unit SC
- Variable hours
- Note: This course is open to all students

This activity course presents intermediate-level plyometric and agility training for the female athlete, designed to further develop neuromuscular control thereby enhancing sport-specific performance and minimizing the potential for injury. Intermediate training will include more complex plyometric techniques, agility drills, flexibility exercises and core strengthening techniques. Further evaluation of health and nutritional issues specific to the female athlete will also be addressed. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-195C Advanced Plyometrics and Agility Training for Female Athletes

- .25-1 unit SC
- Variable hours
- Note: This course is open to all students

This activity course presents advanced-level plyometric and agility training for the female athlete, designed to further advanced students' neuromuscular control, thereby enhancing sport-specific performance and minimizing the potential for injury. Students will perform advanced levels of plyometric techniques, agility drills, flexibility exercises and core strengthening techniques. Health and nutritional issues specific to the female athlete will also be discussed. CSU, UC (credit limits may apply to UC - see counselor)

KNACT-298 Independent Study

- .5-3 units SC
- Variable hours
- Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

KNACT-299 Student Instructional Assistant

- .5-3 units SC
- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

KINESIOLOGY COMBATIVE - KNCMB

Christine Worsley, Dean
Kinesiology, Athletics and Dance Division
Kinesiology Office Building, Room 104

Limitations on enrollment

Effective fall term 2013, changes to the regulations that govern community college enrollments placed limitations on the number of courses that students may take in certain disciplines within the Contra Costa Community College District. The charts below indicate which Diablo Valley College (DVC) courses are assigned to groups of courses ("families") for which limitations have been imposed. Certain courses within certain "families" may be repeated (see catalog description), however, students are limited to four enrollments within the family. Certain DVC courses are equivalent to courses at Los Medanos College and Contra Costa College. An enrollment in an equivalent course at one of those colleges will count toward the allowable four enrollments within the family.

NOTE: Diablo Valley College may offer experimental or topics courses. When appropriate, based on content, such courses will be assigned to a "family" and that enrollment will be counted as an experience within the "family".

KINESIOLOGY

Family: Combatives

KNCMB-110	Self-Defense
KNCMB-114	Jujitsu
KNCMB-118A	Beginning Taekwondo
KNCMB-118B	Intermediate Taekwondo
KNCMB-118C	Advanced Taekwondo
KNCMB-126A	Beginning Aikido
KNCMB-126B	Intermediate Aikido
KNCMB-128	Aikido Weapons-Jo and Bokken
KNCMB-130	Judo
KNCMB-134	Karate
KNCMB-150A	Intermediate Taekwondo
KNCMB-150B	Advanced Taekwondo

KNCMB-110 Self-Defense

- .5-2 units SC
• Variable hours

This is an activity course that presents a combination of defensive techniques and concepts from jujitsu, judo, karate, and aikido. Students will explore self-defense techniques, as well as increase muscular fitness (strength, endurance, flexibility, and balance), improve self-discipline, focus, balance, relieve stress, and increase mental awareness. CSU, UC (credit limits may apply to UC-see counselor)

KNCMB-114 Jujitsu

- .5-2 units SC
• Variable hours

This is an activity course introducing the history, philosophy, techniques and safety aspects of jujitsu. This Japanese system of unarmed combat teaches students to yield to the opponent's strength to gain a physical advantage. Topics will include jujitsu techniques, as well as cardiovascular and muscular fitness. CSU, UC (credit limits may apply to UC-see counselor)

KNCMB-118A Beginning Taekwondo

- .5-2 units SC
• Variable hours

This is an activity course introducing the basic elements of Taekwondo - the ancient Korean martial art. Emphasis will be placed on developing introductory skills as well as the history and philosophy of Taekwondo. Special attention will also be paid to safety procedures and injury prevention while increasing physical fitness and endurance. CSU, UC (credit limits may apply to UC-see counselor)

KNCMB-118B Intermediate Taekwondo

- .5-2 units SC
• Variable hours

This is an activity course presenting intermediate elements of Taekwondo. Emphasis will be placed on refining basic skills, as well as introducing combination and sparring techniques. Physical fitness and endurance will be developed and special attention will be paid to safety procedures and injury prevention. The history of Taekwondo in the United States and an introduction to board-breaking techniques will be presented. CSU, UC (credit limits may apply to UC - see counselor)

KNCMB-118C Advanced Taekwondo

- .5-2 units SC
• Variable hours

This is an activity course presenting advanced elements of Taekwondo - the ancient Korean martial art. Emphasis will be placed on developing powerful hand and kick striking techniques, as well as competition sparring strategies. Physical fitness and endurance will be developed and special attention will be paid to safety procedures and injury prevention. Preparation for Taekwondo competition will also be addressed. CSU, UC (credit limits may apply to UC - see counselor)

KNCMB-126A Beginning Aikido

- .5-2 units SC
• Variable hours

This is an activity course that presents the history, philosophy, techniques and safety aspects of aikido. This Japanese warrior art is a noncompetitive, non-fighting discipline, comprised of defensive techniques and principles of movement. Emphasis is on fundamental aikido techniques, as well as increasing cardiovascular and muscular fitness. CSU, UC (credit limits may apply to UC-see counselor)

KNCMB-126B Intermediate Aikido

.5-2 units SC

- *Variable hours*
- *Recommended: KNCMB-126A or equivalent*

This is an activity course that focuses on intermediate level aikido practice. Students will explore more complex skills and techniques with increased pace. Emphasis is on the development of concentration skills and cardiovascular and muscular fitness. CSU, UC (credit limits may apply to UC-see counselor)

KNCMB-128 Aikido Weapons - Jo and Bokken

.5-2 units SC

- *Variable hours*

This is an activity course that presents the history, philosophy, and safety aspects of Aikido weapons-Jo (wooden staff) and Bokken (wooden sword.) Emphasis is on fundamental aikido weapon techniques, as well as increasing cardiovascular and muscular fitness. CSU, UC (credit limits may apply to UC-see counselor)

KNCMB-130 Judo

.5-2 units SC

- *Variable hours*

This is an activity course that presents the history, philosophy, techniques and safety aspects of judo. Judo is a discipline comprised of throws and pins, self-discipline, punctuality, courtesy, and respect. Emphasis is on judo techniques, as well as increasing cardiovascular and muscular fitness. CSU, UC (credit limits may apply to UC-see counselor)

KNCMB-134 Karate

.5-2 units SC

- *Variable hours*

This is an activity course that presents the the history, philosophy, techniques and safety aspects of Kajukembo Karate. This martial art form teaches the way of the “empty hand” using legs, arms and fists, as well as Kiai (expression of inner (energy), which accompanies each action. Emphasis is on karate techniques, as well as increasing cardiovascular and muscular fitness. CSU, UC (credit limits may apply to UC-see counselor)

KNCMB-150 Topics in Martial Arts and Combatives

.3-4 units SC

- *Variable hours*

A supplemental course is martial arts/combatives to provide a study of current concepts, movements and problems in combatives and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

KINESIOLOGY DANCE – KNDAN

Christine Worsley, Dean

Kinesiology, Athletics and Dance Division

Kinesiology Office Building, Room 104

Limitations on enrollment

Effective fall term 2013, changes to the regulations that govern community college enrollments placed limitations on the number of courses that students may take in certain disciplines within the Contra Costa Community College District. The charts below indicate which Diablo Valley College (DVC) courses are assigned to groups of courses (“families”) for which limitations have been imposed. Certain courses within certain “families” may be repeated (see catalog description), however, students are limited to four experiences within the family. Certain DVC courses are equivalent to courses at Los Medanos College and Contra Costa College. An enrollment in an equivalent course at one of those colleges will count toward the allowable four enrollments within the family.

NOTE: Diablo Valley College may offer experimental or topics courses. When appropriate, based on content, such courses will be assigned to a “family” and that enrollment will be counted as an experience within the “family”.

KINESIOLOGY**Family: Ballet**

KNDAN-110A Ballet Fundamentals I
KNDAN-110B Ballet Fundamentals II
DANCE-212 Ballet I
DANCE-213 Ballet II
DANCE-214 Ballet III
DANCE-216 Pointe Technique

Family: Jazz

KNDAN-120A Jazz Dance Fundamentals I
KNDAN-120B Jazz Dance Fundamentals II
DANCE-222 Jazz Dance I
DANCE-223 Jazz Dance II
DANCE-224 Jazz Dance III

Family: Modern

KNDAN-130A Modern Dance Fundamentals I
KNDAN-130B Modern Dance Fundamentals II
DANCE-232 Modern Dance I
DANCE-233 Modern Dance II
DANCE-234 Modern Dance III

Family: Ballroom Dance

KNDAN-150A Argentine Tango
KNDAN-164A Ballroom/Social Dance I
KNDAN-166 Swing Dance
KNDAN-168A Salsa and Latin Dance I
KNDAN-168B Salsa and Latin Dance II
KNDAN-169A Argentine Tango

Family: Tap

KNDAN-160A Tap Dance I
KNDAN-160B Tap Dance II

Family: Dance Production

DANCE-150A Dance Production II
DANCE-242 Repertory Dance Production I
DANCE-244 Repertory Dance Production II
DANCE-246 Dance Production I
DANCE-248 Dance Production II
DANCE-256 Dance Production Choreography

Family: Dance Performance

DANCE-150B Dance Production II - Tech Week
DANCE-243 Repertory Dance Production I - Tech Week
DANCE-245 Repertory Dance Production II - Tech Week
DANCE-247 Dance Production I - Tech Week
DANCE-249 Dance Production II - Tech Week
DANCE-257 Dance Production Choreography - Tech Week

Family: Dance Survey

KNDAN-100 Introduction to Dance
KNDAN-162 Broadway Dance

Family: Urban Dance

KNDAN-150A Beginning Hip-Hop and Urban Funk
KNDAN-150B Intermediate Hip-Hop and Urban Funk
KNDAN-170A Hip-Hop and Urban Funk Dance I
KNDAN-170B Hip-Hop and Urban Funk Dance II

KNDAN-100 Introduction to Dance

.5-2 units SC
• *Variable hours*

This is an introductory dance course focusing on the development of coordination, rhythm, strength, flexibility, alignment and basic dance movement combinations in a variety of genres. Basic musculoskeletal alignment, movement safety, and dance appreciation skills will also be covered. CSU, UC

KNDAN-105A Pilates Mat Work I

.5-2 units SC
• *Variable hours*

This is an activity course introducing basic mat exercises developed by Joseph Pilates focusing on intrinsic muscle groups. The class addresses individual needs, body alignment, and core strength development, with emphasis placed on back and abdominal strengthening. CSU, UC (credit limits may apply to UC - see counselor)

KNDAN-105B Pilates Mat Work II

.5-2 units SC
• *Variable hours*
• *Recommended: KNDAN-105A or equivalent*

This is an activity course introducing intermediate mat exercises developed by Joseph Pilates focusing on intrinsic muscle groups. The class addresses individual needs, body alignment, and core strength development, with emphasis placed on back and abdominal strengthening as it relates to intermediate level exercises. CSU, UC (credit limits may apply to UC - see counselor)

KNDAN-110A Ballet Fundamentals I

.5-2 units SC
• *Variable hours*

This is an introductory course in ballet techniques. This class will focus on ballet barre, center adagio, allegro work, and across-the-floor combinations. An introduction to the history of the genre and principles of ballet as an art form will also be included. CSU, UC

KNDAN-110B Ballet Fundamentals II

.5-2 units SC
• *Variable hours*
• *Recommended: KNDAN-110A or equivalent*

This is a beginning class in classical ballet techniques. The focus is on beginning barre, beginning center adagio and allegro work and beginning ballet movement combinations in the center. The course also explores the history of ballet and principles as a contemporary art form. CSU, UC

KNDAN-120A Jazz Dance Fundamentals I

.5-2 units SC
• *Variable hours*

This is an introductory course in jazz dance technique. The focus is on proper jazz dance alignment, center work and movement across the floor. Introduction to the history of jazz dance will also be covered. CSU, UC

KNDAN-120B Jazz Dance Fundamentals II

.5-2 units SC
• *Variable hours*
• *Recommended: KNDAN-120A or equivalent*

This is a beginning course in jazz dance technique. The focus is on proper jazz dance alignment, isolations and beginning jazz dance choreography. The evolution of jazz dance from African and Haitian dance to contemporary jazz dance technique will also be covered. CSU, UC

KNDAN-130A Modern Dance Fundamentals I

.5-2 units SC
• *Variable hours*

This is an introductory course in modern dance technique. The focus will be on the development of proper modern dance alignment, center work, and movement across the floor. An introduction to modern dance history will also be included. CSU, UC

KNDAN-130B Modern Dance Fundamentals II

.5-2 units SC

- Variable hours
- Recommended: KNDAN-130A or equivalent

This is a course in beginning modern dance technique. The focus will be on beginning modern dance alignment, center work and modern dance movements across the floor. Current events that shape the history of modern dance in America and in Europe will also be covered. CSU, UC

KNDAN-150 Topics in Dance Arts

.3-4 units SC

- Variable hours

A supplemental course in the dance arts to provide a study of current concepts and problems in dance field and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

KNDAN-160A Tap Dance I

.5-2 units SC

- Variable hours

This is a beginning course in tap dance technique. The focus is on a wide range of tap dance styles. The cultural and historical aspects of this genre will also be studied. CSU, UC

KNDAN-160B Tap Dance II

.5-2 units SC

- Variable hours
- Recommended: KNDAN-160A or equivalent

This is an intermediate course in tap dance technique. The focus is on the introduction of intermediate tap dance steps and combinations. The contribution of tap dance to American art and culture will also be studied. CSU, UC

KNDAN-162 Broadway Dance

.5-2 units SC

- Variable hours

This is a course in Broadway musical dance technique. Dance styles from a variety of Broadway genres, as well as audition techniques, will be covered. The history of dance in musical theater and its impact on American culture will also be discussed. CSU, UC

KNDAN-164A Ballroom/Social Dance I

.5-2 units SC

- Variable hours

This is an activity course in basic ballroom/social dance. This course will focus on the techniques, history, terminology, principles and other elements, including style and rhythm of ballroom/social dance. A partner is not necessary as this course will incorporate an understanding of dance footwork specific to leaders and followers. A variety of dance styles will be covered, and may include American style fox-trot, American style waltz, American style tango, night club two-step, hustle, polka, quickstep and Viennese waltz. CSU, UC

KNDAN-166 Swing Dance

.5-2 units SC

- Variable hours

This is an introductory course in Swing dances. The techniques, terminology, steps, patterns, rhythms, music and history of the various Swing dances will be covered. This is a social dance class, but a partner is not required. CSU, UC

KNDAN-168A Salsa and Latin Dance I

.5-2 units SC

- Variable hours

This is an introductory course in the Latin dances, including Salsa. The techniques, terminology, steps, patterns, rhythms, music, history and development of a variety of Latin dances will be explored. This is a social dance class but a partner is not required. CSU, UC

KNDAN-168B Salsa and Latin Dance II

.5-2 units SC

- Variable hours
- Recommended: KNDAN-168A or equivalent

This is an intermediate level course in the Latin dances including Salsa. Complex techniques, patterns, terminology and rhythms will be explored as well as music history and the development of a variety of Latin dances. CSU, UC

KNDAN-169A Argentine Tango I

.5-2 units SC

- Variable hours

This dance activity course focuses on the fundamentals of Argentine Tango and relates the varied and complex rhythms of the music to the movements that are unique to this dance. CSU, UC

KNDAN-170A Hip-Hop and Urban Funk Dance I

.5-2 units SC

- Variable hours

This dance activity course focuses on beginning hip-hop and funk dance technique. The impact of hip-hop and funk on popular dance, ethnic influences, historical events, and how these dance styles have come to reflect the diversity of America will be discussed. CSU, UC

KNDAN-170B Hip-Hop and Urban Funk Dance II

.5-2 units SC

- Variable hours

This dance activity course focuses on intermediate hip-hop and funk dance technique. This course is designed to increase student movement, vocabulary, and technical skills to include complex foot work, polyrhythmic movements, and the ability to improvise in a cipher. Similarities and differences of popular/social dance in the United States will also be presented. CSU, UC

KINESIOLOGY INTERCOLLEGIATE ATHLETICS – KNICA

Christine Worsley, Dean
Kinesiology, Athletics and Dance Division
Kinesiology Office Building, Room 104

KNICA-098 Intercollegiate Pre-Participation Orientation

- .3 unit P/NP
- *Non degree applicable*
 - *6 hours lecture per term*

This course is designed to prepare new students who intend to try-out/compete for an inter-collegiate athletic team, in the upcoming academic term and season of competition. Students will complete the California Community College Athletic Association's (CCCAA) athletic eligibility requirements, required medical forms and waivers, register for the National Collegiate Athletic Association (NCAA) Clearinghouse, and fulfill other requirements for community college athletic competition.

KNICA-100 Student-Athlete Success I

- 1.5 units SC
- *18 hours lecture/27 hours laboratory per term*

This course is designed to assist student-athletes through the transition to collegiate-level academic achievement and athletic performance. Topics will include, student-athlete academic eligibility requirements, college resources and services (Admissions and Records, Financial Aid, Counseling, etc.), and personal responsibility skills (time management, study skills, communication skills, problem solving skills, etc.). Students will be actively involved in the use of services and practice of skills in order to successfully navigate their first year of the college academic and athletic experience. CSU

KNICA-101 Student-Athlete Success II

- 1.5 units SC
- *18 hours lecture/27 hours laboratory per term*

This course is designed to further assist student-athletes toward degree completion, transfer, and/or professional employment while competing in intercollegiate athletics. Topics for this class include, transfer and athletic eligibility requirements for four year schools, transfer application and/or professional employment process, scholarships and financial aid, leadership skills, and personal responsibility for life success. CSU

KNICA-120 Analysis of the Multiple Aspects of Modern Day Football

- .5-2 units SC
- *Variable hours*
 - *Recommended: Competitive high school football experience or equivalent*

This course provides students the opportunity to review and analyze offensive and defensive schemes of daily practice video and opponent game film. Weekly game plans for offense, defense, and special teams (kicking game) will be presented. CSU, UC (credit limits may apply to UC - see counselor)

KNICA-199 Sport-Specific Athletic Conditioning

- .5-2 units SC
- *May be repeated three times*
 - *Variable hours*

This activity course is designed to increase physical conditioning, skill/technique level, and strategic/tactical knowledge of a specific intercollegiate sport during the off-season. See schedule of classes for sport offerings. CSU, UC (credit limits may apply to UC - see counselor)

KNICA-200 Intercollegiate Baseball, Men

- 3 units SC
- *May be repeated once*
 - *175 hours activity per term*
 - *Recommended: Competitive high school baseball experience or equivalent*

This course provides instruction and intercollegiate competition for men's baseball. CSU, UC (credit limits may apply to UC - see counselor)

KNICA-202A Intercollegiate Basketball-A, Men

- 2 units SC
- *May be repeated once*
 - *115 hours activity per term*
 - *Recommended: Competitive high school basketball experience or equivalent*
 - *Note: Fall term only*

This course provides instruction and intercollegiate competition in men's basketball. CSU, UC (credit limits may apply to UC - see counselor)

KNICA-202B Intercollegiate Basketball-B, Men

- 1 unit SC
- *May be repeated once*
 - *60 hours activity per term*
 - *Prerequisite: KNICA-202A or tryout audition*
 - *Note: Spring term only*

This course provides instruction and intercollegiate competition in men's basketball. CSU, UC (credit limits may apply to UC - see counselor)

KNICA-203A Intercollegiate Basketball-A, Women

2 units SC

- *May be repeated once*
- *115 hours activity per term*
- *Recommended: Competitive high school basketball experience or equivalent*
- *Note: Fall term only*

This course provides instruction and intercollegiate competition in women's basketball. CSU, UC (credit limits may apply to UC - see counselor)

KNICA-203B Intercollegiate Basketball-B, Women

1 unit SC

- *May be repeated once*
- *60 hours activity per term*
- *Prerequisite: KNICA-203A or tryout audition*
- *Note: Spring term only*

This course provides instruction and intercollegiate competition in women's basketball. CSU, UC (credit limits may apply to UC - see counselor)

KNICA-204 Intercollegiate Cross Country, Men

3 units SC

- *May be repeated once*
- *175 hours activity per term*
- *Recommended: Competitive high school cross country experience or equivalent*

This course provides instruction and intercollegiate competition in men's cross country. CSU, UC (credit limits may apply to UC - see counselor)

KNICA-205 Intercollegiate Cross Country, Women

3 units SC

- *May be repeated once*
- *175 hours activity per term*
- *Recommended: Competitive high school cross country experience or equivalent*

This course provides instruction and intercollegiate competition in women's cross country. CSU, UC (credit limits may apply to UC - see counselor)

KNICA-206 Intercollegiate Football, Men

3 units SC

- *May be repeated once*
- *175 hours activity per term*
- *Recommended: Competitive high school football experience or equivalent*

This course provides instruction and intercollegiate competition in football. CSU, UC (credit limits may apply to UC - see counselor)

KNICA-210 Intercollegiate Soccer, Women

3 units SC

- *May be repeated once*
- *175 hours activity per term*
- *Recommended: Competitive high school soccer experience or equivalent*

This course provides instruction and intercollegiate competition in women's soccer. CSU, UC (credit limits may apply to UC - see counselor)

KNICA-215 Intercollegiate Softball, Women

3 units SC

- *May be repeated once*
- *175 hours activity per term*
- *Recommended: Competitive high school softball experience or equivalent*

This course provides instruction and intercollegiate competition in women's softball. CSU, UC (credit limits may apply to UC - see counselor)

KNICA-216 Intercollegiate Swimming and Diving, Men

3 units SC

- *May be repeated once*
- *175 hours activity per term*
- *Recommended: Competitive high school swimming/diving experience or equivalent*

This course provides instruction and intercollegiate competition in men's swimming and diving. CSU, UC (credit limits may apply to UC - see counselor)

KNICA-217 Intercollegiate Swimming and Diving, Women

3 units SC

- *May be repeated once*
- *175 hours activity per term*
- *Recommended: Competitive high school swimming/diving experience or equivalent*

This course provides instruction and intercollegiate competition in women's swimming and diving. CSU, UC (credit limits may apply to UC - see counselor)

KNICA-218 Intercollegiate Tennis, Men

3 units SC

- *May be repeated once*
- *175 hours activity per term*
- *Recommended: Competitive high school tennis experience or equivalent*

This course provides instruction and intercollegiate competition in men's tennis. CSU, UC (credit limits may apply to UC - see counselor)

KNICA-219 Intercollegiate Tennis, Women

- 3 units SC
- *May be repeated once*
 - *175 hours activity per term*
 - *Recommended: Competitive high school tennis experience or equivalent*

This course provides instruction and intercollegiate competition in women's tennis. CSU, UC (credit limits may apply to UC - see counselor)

KNICA-220 Intercollegiate Track and Field, Men

- 3 units SC
- *May be repeated once*
 - *175 hours activity per term*
 - *Recommended: Competitive high school track and field experience or equivalent*

This course provides instruction and intercollegiate competition in men's track and field. CSU, UC (credit limits may apply to UC - see counselor)

KNICA-221 Intercollegiate Track and Field, Women

- 3 units SC
- *May be repeated once*
 - *175 hours activity per term*
 - *Recommended: Competitive high school track and field experience or equivalent*

This course provides instruction and intercollegiate competition in women's track and field. CSU, UC (credit limits may apply to UC - see counselor)

KNICA-223 Intercollegiate Volleyball, Women

- 3 units SC
- *May be repeated once*
 - *175 hours activity per term*
 - *Recommended: Competitive high school volleyball experience or equivalent*

This course provides instruction and intercollegiate competition in women's volleyball. CSU, UC (credit limits may apply to UC - see counselor)

KNICA-224 Intercollegiate Water Polo, Men

- 3 units SC
- *May be repeated once*
 - *175 hours activity per term*
 - *Recommended: Competitive high school water polo experience or equivalent*

This course provides instruction and intercollegiate competition in men's water polo. CSU, UC (credit limits may apply to UC - see counselor)

KNICA-225 Intercollegiate Water Polo, Women

- 3 units SC
- *May be repeated once*
 - *175 hours activity per term*
 - *Recommended: Competitive high school water polo experience or equivalent*

This course provides instruction and intercollegiate competition in women's water polo. CSU, UC (credit limits may apply to UC - see counselor)

LIBRARY STUDIES – LS

Richard Robison, Dean
Library and Learning Resources Division
Library Building, Room 219

LS-121 Information Literacy and Research Skills

- 1 unit P/NP
- *9 hours lecture/27 hours laboratory per term*
 - *Recommended: Eligibility for ENGL-122 or equivalent*

The course presents the research strategies and skills to successfully find, retrieve, evaluate and use information in various formats. Library skills, research methods, and information technology literacy are covered including the ethical and legal aspects of information use and the critical thinking skills necessary to conduct effective college research. CSU, UC

LS-150 Topics in Library Studies

- .3-4 units SC
- *Variable hours*

A supplemental course in library studies to provide a study of current concepts and problems in research, information organization and retrieval, and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

LIBRARY TECHNOLOGY – LT

Richard Robison, Dean
Library and Learning Resources Division
Library Building, Room 219

Possible career opportunities

Library courses teach the skills necessary to effectively locate, organize and use information in any academic or work setting. There are various titles for the jobs you will be qualified for with a certificate of achievement or associate of science degree in library technology: library technician, library assistant, library paraprofessional, instructional media assistant, information specialist, library media specialist, and website editor.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in science degree Library technology

Students completing the program will be able to...

- A. explain library fundamental principles including intellectual freedom, open access, diversity, and patron privacy and confidentiality
- B. apply knowledge and skills gained through the coursework to perform library technician-level tasks.
- C. describe the characteristics of libraries and the roles of libraries in a diverse, multicultural, and democratic society, and how these needs can be met.
- D. apply the basic principles and standardized systems of ordering, cataloging, classifying, processing, and maintaining library materials and resources.
- E. demonstrate the workplace communication skills necessary to successfully interact with users and staff in the library and other information services.
- F. identify and use the technologies found in the library and other information services.
- G. analyze information critically to draw conclusions and/or solve problems when working with patrons, materials, and technology.

The associate in science degree in library technology prepares students for employment in the dynamic field of library and information services. The skills learned in this program may be used in public, school, academic, and corporate libraries, as well as in other jobs or businesses requiring information management skills. If you like working with people, books and information, consider a career in library technology.

DVC library technology students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to four-year institutions of their choice are met. Students who intended to transfer are advised to select either General Education Option 2 (IGETC) or Option 3 (CSU GE). General Education Option 1 is appropriate for students who do not intend to transfer.

To earn the degree, students must complete each course used to meet a major requirement with a "C" grade or higher, maintain an overall GPA of 2.5 or higher in the coursework required for the major and complete all general education requirements. Certain courses may satisfy both major and general education requirements; however, the units are only counted once. With department chairperson's approval, other course substitutions are possible for use in completing the program.

<i>major requirements:</i>		<i>units</i>
LT-101	Foundations of Library and Information Services.....	3
LT-102	Access and Technical Services in Libraries.....	3
LT-104	Cataloging for Paraprofessionals	3
LT-105	Reference and Research Services: Tools and Techniques	3
LS-121	Information Literacy and Research Skills	1
<i>plus at least 2 units from:</i>		
LT-295	Occupational Work Experience Education in LT	1-4
LT-296	Internship in Occupational Work Experience Education in LT	1-4
<i>plus at least 2 units from:</i>		
ENGL-177	Children's Literature	3
LS-150	Topics in Library Studies	0.3-4
LT-106	School Library and Media Services.....	2
LT-107	Digital Assets: Tools and Methodologies	2
LT-110	Job Search Skills for Library Careers.....	1
LT-111	Storytelling	2
LT-112	Internet Skills for Library Personnel	1
LT-150	Topics in Library Technology	0.3-4
<i>plus at least 2 units from:</i>		
ARTDM-105	Introduction to Digital Imaging	3
ARTDM-171	Web Design I	3
BUSMG-121	Practices and Concepts of Supervision.....	3
BUSMG-168	Customer Service.....	0.5
BUSMG-173	Intercultural Communication in the Workplace	0.5
CIS-100	Microsoft Windows – Comprehensive.....	2
COMSC-101	Computer Literacy.....	4
ENGL-177	Children's Literature.....	3
LS-150	Topics in Library Studies	0.3-4
LT-106	School Library and Media Services.....	2
LT-107	Digital Assets: Tools and Methodologies	2
LT-110	Job Search Skills for Library Careers.....	1
LT-111	Storytelling	2
LT-112	Internet Skills for Library Personnel	1
LT-150	Topics in Library Technology	0.3-4
LT-295	Occupational Work Experience Education in LT	1-4
LT-296	Internship in Occupational Work Experience Education in LT	1-4
total minimum units for the major		19

Notes: maximum number of units applicable to the program units in LT-295 or LT-196 is four. There may be no duplication of course units between groups of restricted electives.

**Certificate of achievement
Library technology**

Students completing the program will be able to...

- A. explain library fundamental principles including intellectual freedom, open access, diversity, and patron privacy and confidentiality.
- B. apply knowledge and skills gained through the coursework to perform library technician-level tasks.
- C. describe the characteristics of libraries and the roles of libraries in a diverse, multicultural, and democratic society, and how these needs can be met.
- D. apply the basic principles and standardized systems of ordering, cataloging, classifying, processing, and maintaining library materials and resources.
- E. demonstrate the workplace communication skills necessary to successfully interact with users and staff in the library and other information services.
- F. identify and use the technologies found in the library and other information services.
- G. analyze information critically to draw conclusions and/or solve problems when working with patrons, materials, and technology.

This certificate program prepares students for employment in the dynamic field of library and information services. The skills learned in this program may be used in public, school, academic, and corporate libraries, as well as in other jobs or businesses requiring information management skills. If you like working with people, books and information, consider a career in library technology.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher and maintain an overall GPA of 2.5. With department chairperson's approval, other course substitutions are possible for use in completing the program.

<i>required courses:</i>	<i>units</i>
LT-101 Foundations of Library and Information Services.....	3
LT-102 Access and Technical Services in Libraries.....	3
LT-104 Cataloging for Paraprofessionals	3
LT-105 Reference and Research Services: Tools and Techniques	3
LS-121 Information Literacy and Research Skills	1

plus at least 2 units from:

LT-295 Occupational Work Experience Education in LT	1-4
LT-296 Internship in Occupational Work Experience Education in LT	1-4

plus at least 2 units from:

ENGL-177 Children's Literature	3
LS-150 Topics in Library Studies	0.3-4
LT-106 School Library and Media Services.....	2
LT-107 Digital Assets: Tools and Methodologies	2
LT-110 Job Search Skills for Library Careers.....	1
LT-111 Storytelling	2
LT-112 Internet Skills for Library Personnel	1
LT-150 Topics in Library Technology.....	0.3-4

plus at least 2 units from:

ARTDM-105 Introduction to Digital Imaging	3
ARTDM-171 Web Design I	3
BUSMG-121 Practices and Concepts of Supervision.....	3
BUSMG-168 Customer Service.....	0.5
BUSMG-173 Intercultural Communication in the Workplace	0.5
CIS-100 Microsoft Windows – Comprehensive.....	2
COMSC-101 Computer Literacy.....	4
ENGL-177 Children's Literature	3
LS-150 Topics in Library Studies	0.3-4
LT-106 School Library and Media Services.....	2
LT-107 Digital Assets: Tools and Methodologies	2
LT-110 Job Search Skills for Library Careers.....	1
LT-111 Storytelling	2
LT-112 Internet Skills for Library Personnel	1
LT-150 Topics in Library Technology	0.3-4
LT-295 Occupational Work Experience Education in LT	1-4
LT-296 Internship in Occupational Work Experience Education in LT	1-4
total minimum required units	19

Notes: maximum number of units applicable to the program units in LT-295 or LT-196 is four. There may be no duplication of course units between groups of restricted electives.

LT-101 Foundations of Library and Information Services

- 3 units LR
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course provides an introduction and overview of the missions, services, operations, and staffing of libraries and information centers. The tools and terminology of library services, the library technician's role in the delivery of services, and strategies for successful job placement are emphasized. The course also explores current library issues and trends, as well as the relationship of libraries to the communities and populations they serve. CSU

LT-102 Access and Technical Services in Libraries

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent

This course teaches the full array of access and technical services in a variety of library settings and collection formats including online systems and other technology applications. The theory and practice of selecting, acquiring and circulating materials in print and electronic formats is presented. Skills and competencies necessary for providing quality access services, the history of access services, and ethical, legal and policy considerations will be covered. CSU

LT-104 Cataloging for Paraprofessionals

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Formerly L-104

An introductory course for library paraprofessionals on the basic theories, principles, concepts and procedures of bibliographic control, including descriptive cataloging, classification, subject analysis, physical processing, and bibliographic maintenance. Emphasis will be placed on print monographs, current Anglo-American Cataloging Rules, MARC 21 format, Library of Congress and Dewey classification and LC Subject Heading. CSU

LT-105 Reference and Research Services: Tools and Techniques

3 units LR

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is an introduction to the use of print and online information resources found in public, school, college and special libraries. Students learn effective techniques for assisting library patrons, and are provided opportunities for developing reference service skills. The class uses resources available through the Diablo Valley College library plus other commonly available resources. CSU

LT-106 School Library and Media Services

2 units SC

- 36 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents the principles and procedures central to the operations of school libraries and media centers with an emphasis on the multi-dimensional role of the library technician. The creation of effective learning environments, technology applications, philosophies of service and programming, as well as collection development and other regular procedures will be explored. CSU

LT-107 Digital Assets: Tools and Methodologies

2 units SC

- 36 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course provides an introduction to the basic processes of creating and managing digital assets including assessing materials, managing files for preservation, and using current digitizing software systems. Access issues, metadata schemes, quality control, scanning equipment and other technologies will also be examined. CSU

LT-110 Job Search Skills for Library Careers

1 unit SC

- 18 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Formerly L-110

This course presents job search skills for careers in the library field. Utilizing traditional and online methods, students will explore the range of positions and work environments available; learn strategies for job market research; identify key workplace skills, learn best practices for writing and submitting quality applications, resumes, and cover letters; and practice interviewing techniques in both face-to-face and virtual settings. CSU

LT-111 Storytelling

2 units SC

- 36 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Formerly L-111

This course is an introduction to storytelling in the library, classroom, home, and other settings. Various types, formats, and techniques of storytelling will be explored. Practice in presenting and evaluating a variety of stories will also be included. CSU

LT-112 Internet Skills for Library Personnel

1 unit SC

- 18 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Formerly L-112

This course presents uses of the Internet in providing online library and information services to the public and library operations. The course is designed for library personnel using the Internet and other information systems for work-related tasks such as reference, cataloging, acquisitions, programming, and other information management activities. Exploration of networking fundamentals, advanced searching techniques, user training and teaching, and evaluation of online resources are included. CSU

LT-150 Topics in Library Technology

.3-4 units SC

- Variable hours
- Recommended: Eligibility for ENGL-122 or equivalent
- Formerly L-150

A supplemental course in Library to provide a study of current concepts and problems in library technology. Specific topics will be announced in the schedule of classes. CSU

LT-295 Occupational Work Experience Education in LT

1-4 units SC

- *May be repeated three times*
- *Variable hours*
- *Note: In order to enroll in LT-295, students must be employed, register for the course, complete an online Employment Form, and participate in an orientation. Employment Form can be accessed at www.dvc.edu/wrwx. Incomplete grades are not awarded for this course.*

LT-295 is supervised employment that extends classroom learning to the job site and relates to the student's chosen field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Five hours work per week or seventy-five hours work per term is equal to one unit. Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

LT-296 Internship in Occupational Work Experience Education in LT

1-4 units SC

- *May be repeated three times*
- *Variable hours*
- *Note: In order to enroll in the LT-296 course, students must be interning or volunteering, register for the course, complete an online Employment Form, and participate in an orientation. The Employment Form can be accessed at www.dvc.edu/wrwx. Incomplete grades are not awarded for this course.*

LT-296 is a supervised internship in a skilled or professional level assignment in the student's major field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Internships may be paid, non-paid, or some partial compensation provided. Five hours work per week or seventy-five hours work per term is equal to one unit (paid) or one unit for four hours work per week or sixty hours per term (unpaid work). Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

MATHEMATICS – MATH

Despina Prapavessi, Dean
Math and Computer Science Division
Math Building, Room 267

Possible career opportunities

Mathematicians work in a variety of fields, among them statistics, analysis, actuarial science, mathematical modeling, computer programming, cryptography, research, and education. More than two years of college study is usually required for these career options. A strong background in mathematics is also required for many careers in engineering, accounting and finance, business administration, risk management, and business forecasting, as well as for research in computer science, social science, and the physical sciences.

Program learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in science in mathematics for transfer

Students completing the program will be able to...

- A. solve problems in differential and integral calculus, both single and multivariable, or linear algebra.
- B. recognize, explain, and apply basic techniques of mathematical proof.
- C. utilize knowledge and skills from mathematics to solve mathematical problems from sciences such as physics, chemistry, engineering, computer science, or social science.

The mathematics major is a liberal arts and sciences major for students planning to study mathematics, applied mathematics, or mathematics for secondary school teachers, but also for those pursuing a course of study in physics, chemistry, engineering, computer science, and economics. Mathematics at Diablo Valley College offers a broad range of courses including calculus, differential equations, linear algebra, discrete mathematics and statistics.

The associate in science in mathematics for transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education pattern (CSU GE); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of “C” or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor’s degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Some courses in the major satisfy both major and CSUGE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

<i>major requirements:</i>		<i>units</i>
MATH-192	Analytic Geometry and Calculus I	5
MATH-193	Analytic Geometry and Calculus II	5
MATH-292	Analytic Geometry and Calculus III	5

<i>plus at least 3 units from:</i>		
MATH-194	Linear Algebra	3
MATH-294	Differential Equations	5

<i>plus at least 3 units from any course not used above, or:</i>		
MATH-142	Elementary Statistics with Probability	4
MATH-195	Discrete Mathematics	4
total minimum units for the major		22

MATH-021 Support for Success in MATH-121 Plane Trigonometry

- 1 unit P/NP
- *Non degree applicable*
 - *9 hours lecture/27 hours of laboratory per term*
 - *Corequisite: MATH-121 or equivalent*
 - *Note: This course provides students with support to be successful in MATH-121 Plane Trigonometry. Studies show significantly improved success rates for students who enroll in a support course to accompany their transfer-level math course. This course is a co-requisite to MATH-121 and provides additional support for students who want to feel more confident in their math skills.*

This course provides students with academic support to be successful in MATH-121 Plane Trigonometry. Additional practice with math concepts directly relevant to MATH-121 are integrated into instruction, as well as study skills strategies, mindset, and other academic supports.

MATH-035 Support for Success in MATH-135 College Algebra

- 2 units P/NP
- *Non degree applicable*
 - *18 hours lecture/54 hours of laboratory per term*
 - *Corequisite: MATH-135 or equivalent*
 - *Note: This course provides students with support to be successful in MATH-135 College Algebra. Studies show significantly improved success rates for students who enroll in a support course to accompany their transfer-level math course. This course is a co-requisite to MATH-135 and provides additional support for students who want to feel more confident in their math skills.*

This course provides students with academic support to be successful in MATH-135 College Algebra. Additional practice with math concepts directly relevant to MATH-135 are integrated into instruction, as well as study skills strategies, mindset, and other academic supports.

MATH-040 In-Progress Arithmetic and Basic Algebra Review Self-Paced

- 4 units P/NP
- *Non degree applicable*
 - *216 hours laboratory per term*
 - *Note: Students do not enroll directly in this course. Enrollment is limited to transfer by instructor.*

This course is designed to allow students who are enrolled in MATH-085SP to receive non-degree applicable credit for mastery of some but not all of the outcomes in MATH-085SP. In order to receive credit for MATH-040, students must enroll in MATH-085SP and make reasonable progress through the content.

MATH-041 In-Progress Beginning and Intermediate Algebra Self-Paced

- 4 units P/NP
- Non degree applicable
 - 216 hours laboratory per term
 - Recommended: Successful completion of a course equivalent to high school Algebra I or equivalent.
 - Note: Students do not enroll directly in this course. Enrollment is limited to transfer by instructor.

This course is designed to allow students who are enrolled in MATH-119SP to receive non-degree applicable credit for mastery of some but not all of the outcomes in MATH-119SP. In order to receive credit for MATH-041, students must enroll in MATH-119SP and make reasonable progress through the content.

MATH-042 Support for Success in MATH-142 Elementary Statistics W/ Probability

- 1 unit P/NP
- Non degree applicable
 - 9 hours lecture/27 hours of laboratory per term
 - Corequisite: MATH-142 or equivalent
 - Note: This course provides students with support to be successful in MATH-142 Elementary Statistics with Probability. Studies show significantly improved success rates for students who enroll in a support course to accompany their transfer-level math course. This course is a co-requisite to MATH-142 and provides additional support for students who want to feel more confident in their math skills. Includes use of TI-83/84+ calculators and statistical software.

This course provides students with academic support to be successful in MATH-142 Elementary Statistics with Probability. Additional practice with math concepts directly relevant to MATH-142 are integrated into instruction, as well as study skills strategies, mindset, and other academic supports.

MATH-050 In-Progress Prealgebra with Arithmetic Review Self-Paced

- 4 units P/NP
- Non degree applicable
 - 216 hours laboratory per term
 - Note: Students do not enroll directly in this course. Enrollment is limited to transfer by instructor.

This course is designed to allow students who are enrolled in MATH-075SP to receive non degree applicable credit for mastery of some but not all of the outcomes in MATH-075SP. In order to receive credit for MATH-050, students must enroll in MATH-075SP and make reasonable progress through the content.

MATH-051 In-Progress Elementary Algebra Self-Paced

- 5 units P/NP
- Non degree applicable
 - 270 hours laboratory per term
 - Recommended: MATH-075 or equivalent
 - Note: Students do not enroll directly in this course. Enrollment is limited to transfer by instructor.

This course is designed to allow students enrolled in MATH-090SP to receive credit for mastery of some but not all of the outcomes in MATH-090SP. In order to receive credit for MATH-051, students must enroll in MATH-090SP and make reasonable progress through the content.

MATH-052 In-Progress Intermediate Algebra Self-Paced

- 5 units P/NP
- Non degree applicable
 - 270 hours laboratory per term
 - Recommended: MATH 090 or MATH 090SP or equivalent
 - Note: Students do not enroll directly in this course. Enrollment is limited to transfer by instructor. A scientific calculator is required.

This course allows students enrolled in MATH 120SP to receive credit for mastery of some but not all of the outcomes in MATH 120SP. In order to receive credit for MATH 052, students must enroll in MATH 120SP and make reasonable progress through the content.

MATH-053 In-Progress College Algebra Self-Paced

- 4 units P/NP
- Non degree applicable
 - 216 hours laboratory per term
 - Recommended: Placement into MATH-114 or higher; or MATH-090; or MATH-090SP; or MATH-090E; or assessment process or equivalent.
 - Note: Students do not enroll directly in this course. Enrollment is limited to transfer by instructor.

This course is designed to allow students enrolled in MATH-135SP to receive credit for mastery of some but not all of the outcomes in MATH-135SP. In order to receive credit for MATH-053, students must enroll in MATH-135SP and make reasonable progress through the content.

MATH-054 In-Progress Pre-Calculus Self-Paced

- 5 units P/NP
- Non degree applicable
 - 270 hours laboratory per term
 - Prerequisite: Placement into MATH-191; or MATH-121; or assessment process equivalent
 - Note: Students do not enroll directly in this course. Enrollment is limited to transfer by instructor. A scientific calculator is required.

This course is designed to allow students enrolled in MATH-191SP to receive credit for mastery of some but not all of the outcomes in MATH 191SP. In order to receive credit for MATH 054, students must enroll in MATH-191SP and make reasonable progress through the content.

MATH-075 Prealgebra with Arithmetic Review

4 units SC

- Non degree applicable
- 72 hours lecture per term

This course covers arithmetic review, prealgebra, and their application in everyday life. Topics include the arithmetic operations, long multiplication and division, decimals, fractions, percents, signed numbers, natural number exponents, order of operations, introduction to the concept of variables, combining like terms, solving linear equations, application problems and the use of geometric formulas.

MATH-075SP Prealgebra with Arithmetic Review-Self Paced

4 units SC

- Non degree applicable
- 216 hours laboratory per term
- Note: In this computer-assisted, flexibly-paced class, students will utilize an online learning system for their initial instruction, as well as receive assistance during weekly face-to-face meetings. Students will have some flexibility on how much time they take to learn topics and when they take assessments, though minimum requirements and deadlines will apply. The online laboratories require computer access and may be completed either on or off campus. The face-to-face meetings will be held in the DVC Math Lab (for lab schedule go to www.dvc.edu/PHCmathlab for Pleasant Hill or www.dvc.edu/SRCmathlab for SRC). Students are encouraged to complete MATH-075SP in one semester, or take up to 2 semesters. MATH-075SP is equivalent to MATH-075; students who have completed MATH-075 will not receive credit for MATH-075SP.

This course is a computer-assisted, flexibly-paced class equivalent to MATH-075. This course covers arithmetic review, prealgebra, and their application in everyday life. Topics include arithmetic operations, long multiplication and division, decimals, fractions, percents, signed numbers, natural number exponents, order of operations, introduction to the concept of variables, combining like terms, solving linear equations, application problems and the use of geometric formulas.

MATH-077 Summer Bridge to College Math

1 unit LR

- Non degree applicable
- 40 hours laboratory per term
- Note: This course is part of the EOPS Summer Institute Learning Community and is designed for recent high school graduates. Math/English assessment tests are required. Contact the EOPS Summer Institute Coordinator for more information.

This course is designed to help students transition to math in college from high school. Students work with an instructor and the web-based ALEKS program to assess and build math skills in preparation for a college math course.

MATH-080 Topics in Basic Skills Math

.3-4 units SC

- Non degree applicable
- Variable hours

This is a supplemental course in mathematics to provide a variety of topics for basic skills students. Specific topics will be announced in the schedule of classes.

MATH-085 Arithmetic and Basic Algebra Review

4 units SC

- Non degree applicable
- 54 hours lecture/54 hours laboratory per term
- Note: Studies of student success strongly suggest that degree-bound students should enroll in a math class at higher-level than MATH-085. Go to <https://www.dvc.edu/enrollment/assessment/index.html> and complete the online placement process, then make an appointment with a counselor to discuss placement.

This course is a review of arithmetic and basic algebra. Topics include arithmetic, fractions, percentages, problem solving, solving basic equations, graphing lines, and systems of equations. Students who intend to earn a college degree are strongly discouraged from enrolling in this course if they have successfully completed a course equivalent to high school Algebra I.

MATH-085SP Arithmetic and Basic Algebra Review Self-Paced

4 units SC

- Non degree applicable
- 216 hours laboratory per term
- Note: Studies of student success strongly suggest that degree-bound students should enroll in a math class at higher-level than MATH-085. Go to <https://www.dvc.edu/enrollment/assessment/index.html> and complete the online placement process, then make an appointment with a counselor to discuss placement. In this computer-assisted, flexibly-paced class, students will utilize an online learning system for their initial instruction, as well as receive assistance during weekly face-to-face meetings. Students will have some flexibility on how much time they take to learn topics and when they take assessments, though minimum requirements and deadlines will apply. The online assignments require computer access and may be completed either on or off campus. The face-to-face meetings will be held in the DVC Math Lab (for lab schedule go to www.dvc.edu/PHCmathlab for Pleasant Hill or www.dvc.edu/SRCmathlab for SRC). Students are encouraged to complete MATH-085SP in one semester, or take up to 2 semesters. MATH-085SP is equivalent to MATH-085; students who have completed MATH-085 will not receive credit for MATH-085SP.

This course is a computer-assisted, flexibly-paced class equivalent to MATH-085. This course is a review of topics of arithmetic and basic algebra. Topics include arithmetic, fractions, percentages, problem solving, solving basic equations, graphing lines, and systems of equations. Students who intend to earn a college degree are strongly discouraged from enrolling in this course if they have successfully completed a course equivalent to high school Algebra I.

MATH-090 Elementary Algebra

5 units SC

- Non degree applicable
- 90 hours lecture per term
- Prerequisite: Placement through the assessment process or MATH-075 or MATH-075SP or equivalent

This course is an introduction to the techniques and reasoning of algebra, including linear equations and inequalities, development and use of formulas, algebraic expressions, systems of equations, graphs and introduction to quadratic equations.

MATH-090E Elementary Algebra with Study Skills

6 units SC

- Non degree applicable
- 108 hours lecture per term
- Prerequisite: Placement through the assessment process or MATH-075 or MATH-075SP or equivalent

This course integrates study skills for math success with an introduction to the techniques and reasoning of algebra, including linear equations and inequalities, development and use of formulas, algebraic expressions, systems of equations, graphs and introduction to quadratic equations. Study skills topics will include time management, note taking, memory techniques, studying for tests, test anxiety and math anxiety.

MATH-090SP Elementary Algebra - Self Paced

5 units SC

- Non degree applicable
- 270 hours laboratory per term
- Prerequisite: Placement through the assessment process or MATH-075 or MATH-075SP or equivalent
- Note: Formerly MATH-110SP. In this computer-assisted, flexibly-paced class, students will utilize an online learning system for their initial instruction, as well as receive assistance during weekly face-to-face meetings. Students will have some flexibility on how much time they take to learn topics and when they take assessments, though minimum requirements and deadlines will apply. The online labs require computer access and may be completed either on or off campus. The face-to-face meetings will be held in the DVC Math Lab (for lab schedule go to www.dvc.edu/PHCmathlab for Pleasant Hill or www.dvc.edu/SRCmathlab for SRC). Students are encouraged to complete MATH-090SP in one semester, or take up to 2 semesters. MATH-090SP is equivalent to MATH-090; students who have completed MATH-090 will not receive credit for MATH-090SP.

This course is a computer-assisted, flexibly-paced class equivalent to MATH-090. The topics include linear equations and inequalities, development and use of formulas, algebraic expressions, systems of equations, operations on polynomials, factoring, graphs, and an introduction to quadratic equations.

MATH-092 Math for Trade Pre-Apprentices

4 units P/NP

- Non degree applicable
- 72 hours lecture per term
- Note: This course is part of the Pre-Apprenticeship program.

This course provides practice in the mathematics needed to pass apprenticeship exams for various trades, as well as the mathematics required by apprentices on the job site. This course offers mathematics instruction contextualized for the building trades.

MATH-094 Statway I

4 units SC

- Non degree applicable
- 54 hours lecture/54 hours laboratory per term
- Prerequisite: Placement through the assessment process or MATH 075 or MATH 075SP or equivalent
- Note: TI-83 or TI-84 graphing calculator required

This is the first semester of a two-semester course that introduces the concepts of probability and statistics with requisite arithmetic and algebraic topics integrated throughout. It is intended for students in humanities or social sciences majors. Topics include data collection, organization and graphical interpretation of data, qualitative and quantitative data sets, measures of central tendency and measures of dispersion, bivariate data and scatter plots, linear functions and their graphs, nonlinear functions and their graphs, and linear and exponential/logarithmic models. Learning strategies for success with an emphasis on study skills, resource acquisition, and maintaining a positive perspective towards learning are also discussed and applied.

MATH-114 Geometry

3 units SC

- 54 hours lecture per term
- Prerequisite: Placement MATH-114 or higher; or MATH-090; or MATH-MATH-090SP; or MATH-090E or assessment process or equivalent.
- Recommended: Eligibility for ENGL-116/118 or equivalent

Students will use geometric definitions, axioms, and constructions and both inductive and deductive reasoning techniques to investigate the properties of lines, polygons, and circles. Students will prove geometric theorems, and derive and apply formulas for perimeter, area, and volume for a variety of plane and solid geometric objects.

MATH-119 Beginning and Intermediate Algebra

4 units SC

- 54 hours lecture/54 hours laboratory per term
- *Recommended: Successful completion of a course equivalent to high school Algebra I or equivalent.*
- *Note: Studies of student success strongly suggest that degree-bound students should enroll in a math class at higher-level than MATH-119. Go to <http://www.dvc.edu/enrollment/assessment/index.html> and complete the online placement process, then make an appointment with a counselor to discuss placement.*

This course is a review of topics in Algebra. Topics include factoring polynomials, fractional equations, inequalities, logarithms, exponentials, and functions. This course is intended for students who have not successfully completed a course equivalent to high school Algebra II and who plan to take MATH-121 Plane Trigonometry or MATH-135 College Algebra.

MATH-119SP Beginning and Intermediate Algebra Self-Paced

4 units SC

- 216 hours laboratory per term
- *Recommended: Successful completion of a course equivalent to high school Algebra I or equivalent.*
- *Note: Studies of student success strongly suggest that degree-bound students should enroll in a math class at higher-level than MATH-119. Go to <https://www.dvc.edu/enrollment/assessment/index.html> and complete the online placement process, then make an appointment with a counselor to discuss placement. In this computer-assisted, flexibly-paced class, students will utilize an online learning system for their initial instruction, as well as receive assistance during weekly face-to-face meetings. Students will have some flexibility on how much time they take to learn topics and when they take assessments, though minimum requirements and deadlines will apply. The online assignments require computer access and may be completed either on or off campus. The face-to-face meetings will be held in the DVC Math Lab (for lab schedule go to www.dvc.edu/PHCmathlab for Pleasant Hill or www.dvc.edu/SRCmathlab for SRC). Students are encouraged to complete MATH-119SP in one semester, or take up to 2 semesters. MATH-119SP is equivalent to MATH-119; students who have completed MATH-119 will not receive credit for MATH-119SP.*

This course is a computer-assisted, flexibly-paced class equivalent to MATH-119. This course is a review of topics in Algebra. Topics include factoring polynomials, fractional equations, inequalities, logarithms, exponentials, and functions. This course is intended for students who have not successfully completed a course equivalent to high school Algebra II and who plan to take Trigonometry (MATH-121) or College Algebra (MATH-135).

MATH-120 Intermediate Algebra

5 units SC

- 90 hours lecture per term
- *Prerequisite: Placement through the assessment process or MATH 090 or 090SP or 090E or equivalent*

This course will expand upon the material covered in Elementary Algebra. Topics will include special products and factors, fractional equations, systems of linear equations, inequalities, conics, complex numbers, the binomial theorem, logarithms, and functions. This course is equivalent to a second-year high school algebra course.

MATH-120SP Intermediate Algebra - Self Paced

5 units SC

- 270 hours laboratory per term
- *Prerequisite: MATH-052 or equivalent.*
- *Note: In this computer-assisted, flexibly-paced class, students will utilize an online learning system for their initial instruction, as well as receive assistance during weekly face-to-face meetings. Students will have some flexibility on how much time they take to learn topics and when they take assessments, though minimum requirements and deadlines will apply. The online laboratories require computer access and may be completed either on or off campus. The face-to-face meetings will be held in the DVC Math Lab (for lab schedule go to www.dvc.edu/PHCmathlab for Pleasant Hill or www.dvc.edu/SRCmathlab for SRC). Students are encouraged to complete MATH-120SP in one semester, or take up to 2 semesters. MATH-120SP is equivalent to MATH-120; students who have completed MATH-120 will not receive credit for MATH-120SP.*

This course will expand upon the material covered in Elementary Algebra. Topics will include special products and factors, fractional equations, systems of linear equations, inequalities, conics, complex numbers, the binomial theorem, logarithms, and functions. The course is equivalent to second-year high school algebra.

MATH-121 Plane Trigonometry

3 units SC

- 54 hours lecture per term
- *Prerequisite: Placement into MATH-121; or MATH-119; or MATH-119SP; or MATH-120; or MATH-120SP; or MATH-021 (may be taken concurrently with MATH-121); or assessment process. Or equivalent.*
- *Recommended: High school geometry or equivalent*

This course focuses on the theory and applications of trigonometry, including right triangle trigonometry, general angle trigonometry, and trigonometry on the unit circle, as well as trigonometric functions of real numbers. Applications include solutions of right and oblique triangles in problems in surveying, physics, engineering and navigation. CSU

MATH-124 Mathematics for Liberal Arts

3 units LR

- 54 hours lecture per term
- Prerequisite: Placement into MATH-124; or MATH-119; or MATH-119SP; or MATH-120; or MATH-120SP or assessment process or equivalent.

This course presents applications of techniques and concepts of intermediate algebra and critical thinking to the solving of contemporary problems in mathematics. Topics may include exponential functions, logarithmic scales, probability, statistics, finance, matrix operations, logic or geometry. Historical context of some of the great ideas of mathematics will also be explored. CSU, UC

MATH-125 Mathematical Concepts for Elementary School Teachers

3 units SC

- 54 hours lecture per term
- Prerequisite: Placement into MATH-125; or MATH-119; or MATH-119SP; or MATH-120; or MATH-120SP; or assessment process or equivalent.

This course focuses on the development of quantitative reasoning skills through in-depth, integrated explorations of topics in mathematics, including real number systems and subsystems. Emphasis is on comprehension and analysis of mathematical concepts and applications of logical reasoning. C-ID MATH 120, CSU, UC

MATH-135 College Algebra

4 units LR

- 72 hours lecture per term
- Prerequisite: Placement into MATH-135; or MATH-119; or MATH-119SP; or MATH-120; or MATH-120SP; or MATH-035 (may be taken concurrently with MATH-135); or assessment process. Or equivalent.

This course presents a study of functions and their graphs, including polynomial, rational, radical, exponential, absolute value, and logarithmic functions; systems of equations; theory of polynomial equations; analytic geometry. Other topics include inequalities, nonlinear systems, conic sections. CSU, UC (credit limits may apply to UC - see counselor)

MATH-135SP College Algebra - Self-Paced

4 units LR

- 216 hours laboratory per term
- Prerequisite: Placement through the assessment process or MATH-119 or MATH-120 or 120SP or equivalent
- Note: In this computer-assisted, flexibly-paced class, students will utilize an online learning system for their initial instruction, as well as receive assistance during weekly face-to-face meetings. Students will have some flexibility on how much time they take to learn topics and when they take assessments, though minimum requirements and deadlines will apply. The online laboratories require computer access and may be completed either on or off campus. The face-to-face meetings will be held in the DVC Math Lab (for lab schedule go to www.dvc.edu/PHCmathlab for Pleasant Hill or www.dvc.edu/SRCmathlab for SRC). Students are encouraged to complete MATH-135SP in one semester, or take up to 2 semesters. MATH-135SP is equivalent to MATH-135; students who have completed MATH-135 will not receive credit for MATH-135SP.

This course is a computer-assisted, flexibly-paced class, equivalent to MATH-135. This course presents a study of functions and their graphs, including polynomial, rational, radical, exponential, absolute value, and logarithmic functions; systems of equations; theory of polynomial equations; analytic geometry. Other topics include inequalities, nonlinear systems, conic sections. CSU, UC (credit limits may apply to UC - see counselor)

MATH-140 Tutor Training

1 unit LR

- 10 hours lecture/12 hours laboratory/12 hours laboratory by arrangement per term
- Prerequisite: Placement into MATH-140; or MATH-142; or MATH-144; or MATH-182; or MATH-191; or assessment process or equivalent.
- Recommended: Eligibility for ENGL-116/118 or ENGL-117 or ESL-117A or equivalent

This course presents the basic principles and methods of tutoring, including the tutoring sequence, leading and probing questions, communication skills, and learning theory. Topics include the application of tutoring techniques to specific areas of mathematics including algebra, trigonometry, and pre-calculus. Students will receive instruction to help tutees with special needs. CSU

MATH-142 Elementary Statistics with Probability

4 units LR

- 72 hours lecture per term
- Prerequisite: Placement into MATH-142; or MATH-119; or MATH-119SP; or MATH-120; or MATH-120SP; or MATH-042 (may be taken concurrently with MATH-142); or assessment process. Or equivalent.
- Note: TI-83 or TI-84 Graphing Calculator Required.

This course is designed to introduce the student to the study of statistics and probability. Topics include descriptive statistics (organization of data, histograms and measures of central tendency and spread), linear correlation and regression, design of experiments, introductory probability, random variables, the normal distribution and student's t-distribution, and statistical inference, including confidence intervals and tests of significance. Use of a graphing calculator or computer for statistical analysis is required. C-ID MATH 110, CSU, UC (credit limits may apply to UC - see counselor)

MATH-144 Statway II

4 units LR

- 54 hours lecture/54 hours laboratory per term
- Prerequisite: MATH-094 or equivalent
- Note: TI-83 or TI-84 graphing calculator required

This is the second semester of a two-semester course that introduces the concepts of probability and statistics with requisite arithmetic and algebraic topics integrated throughout. It is intended for students in humanities or social sciences majors. Topics include sampling distributions, the Central Limit theorem, confidence intervals and hypothesis testing for means and proportions, chi square tests and mathematical modeling. Learning strategies for success with an emphasis on study skills, resource acquisition, and maintaining a positive perspective towards learning are also discussed and applied. C-ID Math 110, CSU, UC (credit limits may apply to UC-see counselor)

MATH-150 Topics in Mathematics

.3-4 units SC

- Variable hours

A supplemental course in mathematics to provide a study of current concepts and problems. Specific topics will be announced in the schedule of classes. CSU

MATH-181 Finite Mathematics

3 units LR

- 54 hours lecture per term
- Prerequisite: Placement into MATH-181; or MATH-119; or MATH-119SP; or MATH-120; or MATH-120SP; or assessment process or equivalent.
- Note: TI-83 or TI-84 graphing calculator required.

This course applies intermediate algebra and critical thinking to the solution of contemporary problems in business and the life sciences. Topics include linear models, systems of linear equations and inequalities, linear programming (with geometric method and the simplex method), matrix equations, sets and probabilities, and finance. Students will use a graphing calculator or computer software to manipulate matrices. C-ID MATH 130, CSU, UC

MATH-182 Calculus for Management, Life Science and Social Science I

4 units LR

- 72 hours lecture per term
- Prerequisite: Placement into MATH-182; or MATH-135; or MATH-135SP; or MATH-191; or MATH-191SP; or assessment process or equivalent.
- Recommended: Eligibility for ENGL-122 or equivalent

The first in a two-term calculus sequence for management, life science, and social science majors. Topics include the derivative and its applications (including curve sketching, optimization, and rates of change), an introduction to the integral (including Riemann sums and the Fundamental Theorem of Calculus) and its applications. C-ID MATH 140, CSU, UC (credit limits may apply to UC - see counselor)

MATH-183 Calculus for Management, Life Science and Social Science II

4 units LR

- 72 hours lecture per term
- Prerequisite: MATH-182 or equivalent
- Recommended: MATH-121 or equivalent; eligibility for ENGL-122 or equivalent

This is the second course in a two-term sequence in calculus for management, life science, and social science majors, and is a continuation of MATH-182. Topics include techniques of integration, applications of the integral, multivariable functions, differential equations, and Taylor polynomials. CSU, UC (credit limits may apply to UC - see counselor)

MATH-191 Pre-Calculus

5 units LR

- 90 hours lecture per term
- Prerequisite: Placement into MATH-191; or MATH-121; or assessment process. Or equivalent.
- Note: This course has a technology requirement. See individual instructor for further information.

This course is an in-depth treatment of functions and their graphs, including polynomial, rational, logarithmic, exponential and trigonometric functions. Conic sections, nonlinear systems, vectors and complex numbers are also covered. Use of a graphing calculator or a computer algebra system is required. CSU, UC (credit limits may apply to UC - see counselor)

MATH-191SP Pre-Calculus - Self Paced

5 units SC

- 270 hours laboratory per term
- Prerequisite: Placement into MATH-191; or MATH-121; or assessment process or equivalent
- Note: In this computer-assisted, flexibly-paced class, students will utilize an online learning system for their initial instruction, as well as receive assistance during weekly face-to-face meetings. Students will have some flexibility on how much time they take to learn topics and when they take assessments, though minimum requirements and deadlines will apply. The online labs require computer access and may be completed either on or off campus. The face-to-face meetings will be held in the DVC Math Lab (for lab schedule go to www.dvc.edu/PHCmathlab for Pleasant Hill or www.dvc.edu/SRCmathlab for SRC). Students are encouraged to complete MATH 191SP in one semester, or take up to 2 semesters. Students who have successfully completed MATH-191 will not receive credit for MATH -191SP.

This course is a computer-assisted, flexibly-paced class equivalent to MATH-191. Topics include functions and their graphs, including polynomial, rational, logarithmic, exponential and trigonometric functions, conic sections, nonlinear systems, vectors and complex numbers. Use of a graphing calculator or a computer algebra system is required. CSU, UC (credit limits may apply to UC - see counselor)

MATH-192 Analytic Geometry and Calculus I

5 units LR

- 90 hours lecture per term
- Prerequisite: Placement into MATH-192; or MATH-191; or MATH-191SP; or assessment process or equivalent.
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents the elements of analytic geometry, differentiation and integration of algebraic and transcendental functions with applications. Use of a graphing calculator or a computer algebra system is required. C-ID MATH 210, CSU, UC (credit limits may apply to UC - see counselor)

MATH-193 Analytic Geometry and Calculus II

5 units LR

- 90 hours lecture per term
- Prerequisite: MATH-192 or equivalent
- Recommended: Eligibility for ENGL-122 or equivalent

This course is a continuation of MATH-192. Techniques and applications of integration in geometry, science and engineering will be explored. Work with algebraic and transcendental functions will be continued. Other topics will include numerical methods in evaluation of the integral, infinite series, solving differential equations, applications of differential equations, polar coordinates, parametric equations and conic sections. C-ID MATH 220, CSU, UC (credit limits may apply to UC - see counselor)

MATH-194 Linear Algebra

3 units LR

- 54 hours lecture per term
- Prerequisite: MATH-193 or equivalent
- Recommended: Eligibility for ENGL-122 or equivalent

This course is an introduction to linear algebra, covering vector spaces, matrices, determinants, bases, and linear transformations. Techniques for solving systems of equations using matrices, and applications of linear transformations will be covered. C-ID MATH 250, CSU, UC

MATH-195 Discrete Mathematics

4 units LR

- 72 hours lecture per term
- Prerequisite: MATH-193 or equivalent
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: MATH-193 or equivalent may be taken either as a prerequisite or concurrently

This course provides an introduction to propositional logic, induction, set theory, relations, and functions, counting and combinatorics, introduction to trees, graph theory, algorithms, and algebraic structures. The emphasis is on topics of interest to computer science students. CSU, UC

MATH-289 Introduction to Upper Division Mathematics

4 units SC

- 72 hours lecture per term
- Prerequisite: MATH-193 or equivalent.
- Recommended: Eligibility for ENGL 116/118 or equivalent.

This course is designed for students who intend to transfer to a four-year college or university and study upper-division mathematics. Topics include number theory, set theory, and methods of proof including induction, direct and indirect proof as well as other topics from upper-division mathematics including abstract algebra. CSU, UC

MATH-292 Analytic Geometry and Calculus III

5 units LR

- 90 hours lecture per term
- Prerequisite: MATH-193 or equivalent

This course is a continuation of MATH-193. Topics include limits, parametric equations, vector-valued functions, analytic geometry of three dimensions, partial derivatives, multiple integrals, and Green's, Stokes' and the Divergence theorems. C-ID MATH 230, CSU, UC

MATH-294 Differential Equations

5 units LR

- 90 hours lecture per term
- Prerequisite: MATH-292 or equivalent
- Recommended: MATH-194 or equivalent (may be taken concurrently)
- Note: TI-83 or TI-84 graphing calculator required.

This course presents an introduction to the theory and applications of ordinary differential equations and an introduction to partial differential equations. C-ID MATH 240, CSU, UC

MATH-298 Independent Study

- .5-3 units SC
- Variable hours
- Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

MATH-299 Student Instructional Assistant

- .5-3 units SC
- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

MUSIC – MUSIC

Toni Fannin, Dean
 Applied and Fine Arts Division
 Business and Foreign Language Building, Room 204

Possible career opportunities

Music prepares students for careers as performers, teachers, composers, historians, arts administrators, and more. Career options include: conductor, arranger, film scorer/composer, music business/manager, music editor, music supervisor/director, songwriter, transcriber, editor (print music publishing), choir director, midi engineering, recording engineer, studio director or manager, sound designer, music therapist, instrumental soloist, sound technician, and tour coordinator. Many careers require more than two years of study.

Program learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

**Associate in arts degree
 Music**

Students completing the program will be able to...

- A. perform music with technical facility and artistry on his/her voice or choice of instrument as a soloist and as a member of an ensemble.
- B. demonstrate practical musical literacy, both theoretical and historical.
- C. listen to music with practical awareness, theoretical, critical, and historical.

The associate in arts degree in music offers students the opportunity to attain the basic skills and knowledge needed as preparation for careers in music and further undergraduate study. The music major is a two-year program of transferable courses open to all students. Required courses include applied music, theory and musicianship, piano proficiency and large ensemble. The choice of large ensemble performance courses and literature courses enables the student to customize his/her own needs and/or special interests.

This degree provides students with the foundations for a broad range of musical specializations such as instrumental performance, vocal performance, jazz performance, composition, theory, musicology, ethnomusicology, music education, and music industry. Music faculty and staff are dedicated to assisting students in exploring performance and teaching opportunities, and transfer to four-year institutions of higher learning.

The DVC music major is intended for transfer. Students who intend to transfer to a four-year baccalaureate program should consult with a counselor regarding specific major preparation requirements at the transfer institution of their choice. Students may not take a pass/no pass option for major courses. Students who intend to transfer are advised to select General Education Option 2 (GETC) or Option 3 (CSU GE). Option 1 (DVC General Education) is not generally advised.

Students must complete each of the courses required for the major with a "C" grade or higher. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

major requirements: units

applied music

a minimum of 2 times for a total of 2 units

MUSIC-100 Applied Music..... 1

theory and musicianship

MUSIC-122* Theory and Musicianship I..... 4

MUSIC-123* Theory and Musicianship II..... 4

MUSIC-222 Theory and Musicianship III..... 4

MUSIC-223 Theory and Musicianship IV..... 4

piano proficiency

MUSIC-150 Beginning Piano I1*

MUSIC-151 Beginning Piano II1*

large ensemble

plus a minimum of 4 units from:

MUSIC-135	Vocal Jazz Ensemble	1
MUSIC-136	Jazz Ensemble	1
MUSIC-140	Wind Ensemble	1
MUSIC-162	Concert Choir	1
MUSIC-166	Chamber Singers	1-2
MUSIC-180	Diablo Valley Masterworks Chorale	1
MUSIC-236	Night Jazz Band	1
MUSIC-240	Symphonic Band	1
MUSIC-290	DVC Philharmonic Orchestra	1

total minimum units for the major 22

*Credit by examination available

recommended courses:

music literature

MUSIC-110	Music Appreciation	3
MUSIC-112	America's Music - A Multicultural Perspective.....	3
MUSIC-114	World Music	3
MUSIC-117	History of Rock and R&B	3
MUSIC-118	History of Jazz.....	3

Associate in arts in music for transfer

Students completing the program will be able to...

- A. perform music with technical facility and artistry on his/her voice or choice of instrument as a soloist and as a member of an ensemble.
- B. demonstrate practical musical literacy, both theoretical and historical.
- C. listen to music with practical awareness, theoretical, critical, and historical.

The associate in arts in music for transfer major at Diablo Valley College (DVC) offers students the opportunity to attain the basic skills and knowledge needed as preparation for careers in music and further undergraduate study. Required courses include applied music, theory and musicianship, and large ensemble. The choice of large ensemble performance and choice of voice or specific instrument in applied music enables the student to customize his/her own needs and/or special interests. This degree provides students with the foundations for a broad range of musical specializations such as instrumental performance, vocal performance, jazz performance, composition, theory, musicology, ethnomusicology, music education, and music industry. Music faculty and staff are dedicated to assisting students in exploring performance and teaching opportunities, and transfer to baccalaureate programs in music.

The associate in arts in music for transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education pattern (CSU GE); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Some courses in the major satisfy both major and CSU GE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

major requirements:	units
MUSIC-100 Applied Music.....	1*
MUSIC-122 Theory and Musicianship I.....	4
MUSIC-123 Theory and Musicianship II.....	4
MUSIC-222 Theory and Musicianship III.....	4
MUSIC-223 Theory and Musicianship IV.....	4

plus at least 4 units from:

MUSIC-135	Vocal Jazz Ensemble	1
MUSIC-136	Jazz Ensemble	1
MUSIC-140	Wind Ensemble	1
MUSIC-162	Concert Choir	1
MUSIC-166	Chamber Singers	1-2
MUSIC-240	Symphonic Band.....	1
MUSIC-290	DVC Philharmonic Orchestra	1

total minimum units for the major 24

*must be taken 4 times (total 4 units)

Limitations on enrollment

Effective fall term 2013, changes to the regulations that govern community college enrollments placed limitations on the number of courses that students may take in certain disciplines within the Contra Costa Community College District. The charts below indicate which Diablo Valley College (DVC) courses are assigned to groups of courses ("families") for which limitations have been imposed. Certain courses within certain "families" may be repeated (see catalog description), however, students are limited to four enrollments within the family. Certain DVC courses are equivalent to courses at Los Medanos College and Contra Costa College. An enrollment in an equivalent course at one of those colleges will count toward the allowable four enrollments within the family.

NOTE: Diablo Valley College may offer experimental or topics courses. When appropriate, based on content, such courses will be assigned to a “family” and that enrollment will be counted as an experience within the “family”.

MUSIC

Family: Applied music

MUSIC-100 Applied Music

Family: Repertoire/literature

MUSIC-255 Piano Repertoire Master Class

Family: Class piano

MUSIC-150 Beginning Piano I
MUSIC-151 Beginning Piano II
MUSIC-250 Intermediate Piano I
MUSIC-251 Intermediate Piano II

Family: Class classical guitar

MUSIC-101 Beginning Guitar
MUSIC-102 Intermediate Guitar

Family: Solo improvisation

MUSIC-127 Jazz Theory and Improvisation
MUSIC-128 Jazz Theory and Improvisation II
MUSIC-152 Jazz Piano
MUSIC-171 Jazz and Popular Solo Voice
MUSIC-190JA Jazz Theory and Improvisation II

Family: Pedagogy

MUSIC-256 Pedagogy for Studio Music Teachers

Family: Class vocal study

MUSIC-133 Opera Theater
MUSIC-170 Applied Voice Training
MUSIC-179 Intermediate Applied Voice

Family: Classical large ensembles - Orchestra

MUSIC-180 Diablo Valley Masterworks Chorale
MUSIC-290 DVC Philharmonic Orchestra

Family: Classical large ensembles - Choir

MUSIC-162 Concert Choir

Family: Classical large ensembles - Band

MUSIC-240 Symphonic Band

Family: Classical chamber ensembles

MUSIC-103 Guitar Ensemble
MUSIC-104 Advanced Guitar Ensemble
MUSIC-140 Wind Ensemble
MUSIC-142 Woodwind Ensemble
MUSIC-144 Brass Ensemble
MUSIC-166 Chamber Singers
MUSIC-168 Percussion Ensemble
MUSIC-176 String Ensemble
MUSIC-252 Piano Ensemble

Family: Classical large ensembles - Jazz, pop, rock

MUSIC-136 Jazz Ensemble
MUSIC-236 Night Jazz Band

Family: Ensembles - Jazz, pop, rock

MUSIC-108 Rock Theory and Improvisation I
MUSIC-130 Jazz Workshop
MUSIC-135 Vocal Jazz Ensemble
MUSIC-137 Jazz Combos
MUSIC-190RT Rock Theory and Improvisation II
MUSIC-190SM Soul Music of the 1962-1980 Era
MUSIC-208 Rock Theory and Improvisation II

Family: Musical theater

MUSIC-134 Musical Theater Workshop
MUSIC-190SH Show Choir

Family: Performance

MUSIC-109 Live Music Production and Stagecraft I
MUSIC-190LP Live Production Techniques
MUSIC-209 Live Music Production and Stagecraft II

MUSIC-100 Applied Music

1 unit LR

- *May be repeated three times*
- *80 hours laboratory by arrangement per term*
- *Limitation on enrollment: Audition required. Specific days and times are announced in the Schedule of Classes. Students must have the ability to read written music at sight, play one's instrument or sing with an accomplished level of technical facility, an accomplished level of metric and rhythmic accuracy as a soloist, and an accomplished level of intonation and/or harmonic awareness.*
- *Note: This course is limited to students majoring in music and intending to complete the A.A. or A.A.T. in Music, and must therefore be concurrently enrolled in a major performance ensemble (choir, band, orchestra, jazz ensemble) and in a theory and musicianship class (MUSIC-122, 123, 222, 223).*

This course consists of individualized study of the appropriate techniques and repertoire for the specific instrument or voice being studied. The emphasis is on the progressive development of skills needed for solo performance. Achievement is evaluated through a juried performance. Students receive six hours of lessons from an instructor scheduled throughout the semester. Students are required to practice at least 3.5 hours per week during scheduled supervised practice hours in the department practice rooms. Students will meet an additional 12 hours during the semester for group discussion and performances. C-ID MUS 160, CSU, UC

MUSIC-101 Beginning Guitar

1 unit SC

- 54 hours laboratory per term
- Note: Students must provide an acoustic six-string guitar for use in the course

This course provides beginning six-string guitar instruction in both folk and classical styles. First position keys and chords, harmonization by ear, transposition, various strums and styles, finger-picking accompaniments, bass notes, basic music theory, and note reading are presented. No previous musical experience is necessary. CSU, UC

MUSIC-102 Intermediate Guitar

1 unit SC

- 60 hours laboratory per term
- Recommended: MUSIC-101 or equivalent
- Note: Students must provide an acoustic six-string guitar for use in the course

This course provides intermediate six-string guitar instruction. Intermediate level classical solo repertoire as well as equivalent level popular music will be examined. Bar chords, intermediate level keys and arpeggios, transposition with and without a capo, strums, bass runs, and classical theory will be taught. CSU, UC

MUSIC-103 Guitar Ensemble

1 unit SC

- May be repeated three times
- 60 hours laboratory per term
- Recommended: MUSIC-102 or equivalent
- Note: Students must provide an acoustic six-string guitar for use in the course

This course focuses on the sight-reading, rehearsal, and performance of basic-level guitar ensemble literature. Basic note reading skills will be employed and emphasis is placed on individual practice, listening, performance, and being an active part of the ensemble experience. CSU, UC

MUSIC-104 Advanced Guitar Ensemble

1 unit SC

- May be repeated three times
- 60 hours laboratory per term
- Recommended: MUSIC-103 or equivalent
- Note: Students must provide an acoustic six-string guitar for use in the course

This course focuses on the sight-reading, rehearsal, and performance of advanced guitar ensemble literature. Students will experience an expanded ensemble repertoire arranged for up to eight players featuring the music of Bach, Haydn, and other classical masters. Advanced note reading skills will be employed and emphasis is placed on individual practice, listening, performance, and being an active part of the ensemble experience. CSU, UC

MUSIC-108 Rock Theory and Improvisation I

1 unit SC

- 60 hours laboratory per term

This course presents the basic study and performance of historical Blues, including Funk, Soul, R&B, Country, and Rock. Both theoretical and performance aspects will be covered. Small bands (guitar, bass, drums, keyboards, horns, and vocals) will be formed for class performances. Guest artists and industry experts will be featured each term. CSU, UC

MUSIC-109 Live Music Production and Stagecraft I

1 unit SC

- 60 hours laboratory per term

This course provides the beginning musician with basic live-show production experience. Practical applications of stage processes from load-in to load-out, including basic stagecraft, live sound, and light engineering will be presented. Guest artists and industry experts will be featured each term. CSU, UC

MUSIC-110 Music Appreciation

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is an introduction to the experience of listening to music with an appreciation of its technical, stylistic, expressive, social and historical aspects. Audio recordings, audio-video recordings, and live performances are used to study the evolution of Western classical styles and genres including opera, symphony, concerto, and chamber music, as well as jazz and rock. Some comparison of Western musical traditions with those of other cultures will be included. C-ID MUS 100, CSU, UC

MUSIC-112 America's Music- A Multicultural Perspective

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents an introduction to the field of ethnomusicology and the idea that music is culture. Topics will include the diverse music and traditions in the Americas as well as the cultural contributions and influences of major ethnic groups. Historical, religious, political, and social contexts for musical development and experience will also be covered. CSU, UC

MUSIC-114 World Music

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents a survey of world music and introduces the field of ethnomusicology. The cultural contributions and influences of music and traditions in the Americas, Asia, the Middle East, Africa, Oceania, and Europe are emphasized. Historical, cultural, philosophical and social conditions in which music exists, its relationship to cultural continuity and/or change, as well as the artistic conditions in which musics and cultures develop are explored through three primary lenses: sound, concept, and behavior. CSU, UC

MUSIC-115 Music of the Middle East and South Asia

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is a survey of music cultures in the Middle East/North Africa and South Asia. Students will study traditional and popular musical traditions in rural, urban, and diaspora communities. Local, national, and global contexts for music will be demonstrated by the examination of the ways in which hybrid musical forms emerge through contact with Western music. CSU, UC

MUSIC-116 Native American Music of the Americas

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course provides a survey of musical traditions, contributions and influences of Native peoples in North, Central, and South America. Musical traditions and genres affected by social, historical, and political conditions will be presented. Global issues and events will be explained through analyzing the ways in which new or hybrid musical forms emerge through contact with non-Native musics. An emphasis on music used as a tool of resistance and its role in maintaining identity will be analyzed within the processes of cultural continuity and change. The course uses concepts from ethnomusicology and anthropology to promote the idea that music and culture are inseparable. CSU, UC

MUSIC-117 History of Rock and R&B

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

The course will examine the history of rock and roll and its musical roots. Students will learn basic music listening skills while examining the multicultural history of rock and its connection to contemporary American culture. Audio recordings, audio-visual recordings, and live performances are used to study the evolution of rock and its various musical roots including blues, country, Rhythm and Blues (R&B), and folk music. CSU, UC

MUSIC-118 History of Jazz

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents the history of jazz music from African retentions, ragtime, stride, dixieland, swing, bebop, and cool, to various contemporary jazz and fusion art forms. It includes a study of the cultural forces that have shaped the art from European, African, Latin, and African-American influences. The class explores the contributions and conflicts of African-Americans throughout the history and development of this American music. CSU, UC

MUSIC-119 The History and Culture of Hip Hop Music

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents the development of hip hop as a musical style and cultural movement. Students will examine key figures in hip hop, institutions, and social settings through readings, electronic media, videos, and hands-on projects. Students will also investigate how hip hop culture is not only a source of entertainment, but also a medium that analyzes and/or provides commentary regarding social, economic, political and cultural issues dealing with identity, cultural genocide, misogyny, racism, classism, materialism, freedom of speech and sexuality. CSU, UC

MUSIC-121 Introduction to Music Composition

3 units SC

- 36 hours lecture/18 hours laboratory/36 hours laboratory by arrangement per term
- Recommended: MUSIC-122 or equivalent

This course presents an introduction to basic techniques for music composition. Listening, reading, discussion, and composing exercises will focus students' awareness on the diversity of aesthetics, styles, and techniques that exist today. CSU, UC

MUSIC-122 Theory and Musicianship I

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Note: Credit by examination option available

This course is a study of the fundamental concepts of Western music theory. These concepts are applicable to both classical and popular styles. The study addresses notation, fundamental theoretical concepts, their relationship to the evolution of musical aesthetics in Western culture, musicianship skills including sight singing, rhythmic training, ear training, dictation, and keyboard realization, and basic composition. C-ID MUS 120, MUS 125, CSU, UC

MUSIC-123 Theory and Musicianship II

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Recommended: MUSIC-122 or equivalent

This course is a study of harmony and voice leading in the Western Common Practice and is continuation of Music-122. Topics include diatonic functionality, four-part voice leading, simple musical structures, harmonic and formal analysis, and musicianship skills including sight singing, rhythmic training, dictation, and keyboard realization. C-ID MUS 130, MUS 135, CSU, UC

MUSIC-127 Jazz Theory and Improvisation

2 units SC

- 18 hours lecture/36 hours laboratory/18 hours laboratory by arrangement per term
- Recommended: MUSIC-122 or equivalent

This is an introductory course to the study of jazz theory with special emphasis upon spontaneous improvisation in the jazz tradition. Students will perform in class. CSU, UC

MUSIC-128 Jazz Theory and Improvisation II

2 units SC

- 18 hours lecture/36 hours laboratory/18 hours laboratory by arrangement per term
- Recommended: MUSIC-127 or equivalent

This is an intermediate course for the study of jazz theory with special emphasis on spontaneous improvisation in the jazz tradition. Students will perform in class. CSU, UC

MUSIC-129 Counterpoint

3 units SC

- 36 hours lecture/18 hours laboratory/36 hours laboratory by arrangement per term
- Recommended: MUSIC-122 or equivalent

This course presents the study of composition practices of the 16th Century with emphasis on species counterpoint. Students will analyze and compose Motets, Masses, Fugues, and other musical forms using imitative techniques. CSU, UC

MUSIC-130 Jazz Workshop

1 unit SC

- May be repeated three times
- 72 hours laboratory per term
- Limitation on enrollment: Audition required. Specific days and times are announced in the Schedule of Classes.

This course presents the study of skills required to play jazz, including intonation, rhythmic accuracy, tone, dynamic control, style-specific articulation, phrasing, expression, sight-reading, improvisation and practicing. A variety of styles will be studied including Medium Swing, Latin and Fusion. Skills are developed in an ensemble setting and public performances are included. New literature will be studied each semester. CSU, UC

MUSIC-133 Opera Theater

1 unit SC

- May be repeated three times
- 54 hours laboratory per term
- Prerequisite: Audition

This course provides training and experience for vocalists in the production and presentation of opera including comprehensive rehearsal and performance. Students will be assigned chorus and/or solo parts to perform on their own. All students will be given the opportunity to learn applicable elements of stagecraft and opera performance. CSU, UC

MUSIC-134 Musical Theater Workshop

1 unit SC

- May be repeated three times
- 72 hours laboratory per term
- Prerequisite: Audition

This course provides training and experience for instrumentalists and vocalists in the production and presentation of a musical including comprehensive rehearsal and performance. CSU, UC

MUSIC-135 Vocal Jazz Ensemble

1 unit SC

- May be repeated three times
- 72 hours laboratory per term
- Prerequisite: Audition

This course is for the study, rehearsal and public performance of standard vocal jazz ensemble literature for mixed voices. New literature will be studied each term to address different technical and artistic issues. C-ID MUS 180, CSU, UC

MUSIC-136 Jazz Ensemble

1 unit SC

- May be repeated three times
- 72 hours laboratory per term
- Prerequisite: Audition
- Audition required. Specific days and times are announced in the Schedule of Classes.
- Prerequisite: Audition

This course is a study of performance in a jazz ensemble both as a soloist and a member of a section. Skills addressed include section and ensemble intonation, rhythmic accuracy, tone, blend, balance, style-specific articulation, phrasing, expression, and improvisation. A variety of styles will be studied including ballad, shuffle and funk. Public performance is included. Literature studied will vary each semester. C-ID MUS 180, CSU, UC

MUSIC-137 Jazz Combos

1-2 units SC

- *May be repeated three times*
- *Variable hours*
- *Prerequisite: Audition*

This is an advanced course made up of small jazz combos (instrumental and/or vocal) that rehearse and perform a variety of jazz styles. Students will improvise, sight read, and perform in a variety of small group settings, which may include off-campus venues, concerts, and festivals. C-ID MUS 185, CSU, UC

MUSIC-140 Wind Ensemble

1 unit LR

- *May be repeated three times*
- *54 hours laboratory per term*
- *Prerequisite: Audition*

This is a performance organization whose goals include the sight-reading, rehearsal and performance of a variety of wind ensemble literature. Each member of the group will become a better musician through individual practice and performance, listening and being an active part of the ensemble experience. New literature will be performed each term. C-ID MUS 180, CSU, UC

MUSIC-142 Woodwind Ensemble

1 unit SC

- *May be repeated three times*
- *54 hours laboratory per term*
- *Prerequisite: Audition*

This performance ensemble focuses on the sight-reading, rehearsal and performance of woodwind ensemble literature. Each member of the group will become a better musician through individual practice and performance, listening and being an active part of the ensemble experience. CSU, UC

MUSIC-144 Brass Ensemble

1 unit LR

- *May be repeated three times*
- *72 hours laboratory per term*
- *Prerequisite: Audition*

This performance ensemble focuses on the sight-reading, rehearsal and performance of brass ensemble literature. Each member of the group will become a better musician through individual practice and performance, listening and being an active part of the ensemble experience. CSU, UC

MUSIC-150 Beginning Piano I

1 unit SC

- *54 hours laboratory per term*

This course provides group instruction in piano for students with no prior keyboard experience. Ensemble and solo works, basic rhythm, and fundamental keyboard and music theory skills based on major and minor five-note patterns will be covered. Attention is given to the student's individual needs, goals, and abilities. CSU, UC

MUSIC-151 Beginning Piano II

1 unit SC

- *54 hours laboratory per term*
- *Recommended: MUSIC-150 or equivalent*

This course provides group instruction in piano. Ensemble and solo works beyond the five-finger position will be covered. Classical and popular music will be emphasized. CSU, UC

MUSIC-152 Jazz Piano

1 unit SC

- *72 hours laboratory per term*
- *Recommended: MUSIC-151 or equivalent*

This course provides study in the theory and practice of jazz piano through learning chords, voicings, improvisational techniques, and various idiomatic styles. CSU, UC

MUSIC-162 Concert Choir

1 unit SC

- *May be repeated three times*
- *72 hours laboratory per term*
- *Limitation on enrollment: Audition required. Specific days and times are announced in the Schedule of Classes.*

This course presents the study, rehearsal and public performance of standard choral literature for mixed voices. New literature will be studied each term. C-ID MUS 180, CSU, UC

MUSIC-166 Chamber Singers

1-2 units SC

- *May be repeated three times*
- *54 hours laboratory/54 hours laboratory by arrangement per term*
- *Limitation: Audition required. Specific days and times are announced in the Schedule of Classes.*

Students will study and perform Renaissance through 21st century chamber choir literature including music influenced by non-Western cultures. C-ID MUS 180, CSU, UC

MUSIC-168 Percussion Ensemble

1 unit SC

- *May be repeated three times*
- *72 hours laboratory per term*
- *Prerequisite: Audition*

This performance ensemble focuses on the sight-reading, rehearsal and performance of percussion ensemble literature. Each member of the group will become a better musician through individual practice and performance, listening and being an active part of the ensemble experience. CSU, UC

MUSIC-170 Applied Voice Training

1 unit SC

- *54 hours laboratory per term*

This course presents the fundamentals of vocal tone production. Students will practice tone production, breath control, and vocal placement. Emphasis is placed on song interpretation and vocal pedagogy. CSU, UC

MUSIC-171 Jazz and Popular Solo Voice

- 1 unit SC
 • 54 hours laboratory per term

This course is a study of the fundamentals of vocal tone production, breathing, vocal placement, and song interpretation as it applies to jazz, Broadway and other popular vocal styles. CSU, UC

MUSIC-176 String Ensemble

- 1 unit LR
 • May be repeated three times
 • 72 hours laboratory per term
 • Limitation: Audition required. Specific days and times are announced in the Schedule of Classes.

In this course students study, rehearse, and publicly perform the music for or with string ensemble. New literature will be studied each term so that different technical and artistic issues are addressed. CSU, UC

MUSIC-179 Intermediate Applied Voice

- 1 unit SC
 • 54 hours laboratory per term
 • Limitation: Audition required. Specific days and times are announced in the Schedule of Classes.
 • Recommended: MUSIC-170 or MUSIC-171 or equivalent

This course is a continued study of the fundamentals of vocal tone production, breathing, and vocal placement. Emphasis will be placed on song interpretation and vocal pedagogy. CSU, UC

MUSIC-180 Diablo Valley Masterworks Chorale

- 1 unit SC
 • May be repeated three times
 • 72 hours laboratory per term
 • Limitation: Audition required. Specific days and times are announced in the Schedule of Classes.

This course presents the study and performance of major works of the chorus and orchestra literature, along with practical experience in the operation of a community chorus. New literature is studied each term. CSU, UC

MUSIC-190 Topics in Music

- .3-4 units SC
 • Variable hours

A supplemental course in music to provide a study of current topics in music. Specific topics will be announced in the schedule of classes. CSU

MUSIC-208 Rock Theory and Improvisation II

- 1 unit SC
 • 60 hours laboratory per term
 • Recommended: MUSIC-108 or equivalent

This course presents the intermediate study and performance of historical Rock, including Funk, Soul, R&B, and Country. Both theoretical and performance aspects will be covered. Large bands (guitars, bass, drums, percussion, keyboards, horns, and multi vocals) will be formed for class performances. Guest artists and industry experts will be featured each term. CSU, UC

MUSIC-209 Live Music Production and Stagecraft II

- 1 unit SC
 • 60 hours laboratory per term
 • Recommended: MUSIC-109 or equivalent

This course provides the intermediate musician with professional level live-show production experience. Practical applications of stage processes from load-in to load-out, including professional level stagecraft, live sound, and light engineering will be presented. Guest artists and industry experts will be featured each term. CSU, UC

MUSIC-221 Advanced Music Composition

- 3 units SC
 • 36 hours lecture/18 hours laboratory/36 hours laboratory by arrangement per term
 • Prerequisite: MUSIC-121 or equivalent
 • Recommended: MUSIC-122 or equivalent

This course is a continuation of MUSIC-121. Advanced exercises in listening, reading, and composing are aimed at expanding the students' awareness of the diversity of modern aesthetics, styles, and techniques. CSU, UC

MUSIC-222 Theory and Musicianship III

- 4 units SC
 • 54 hours lecture/54 hours laboratory per term
 • Prerequisite: MUSIC-123 or Equivalent.

This course presents the study of harmony and voice-leading in the Western Common Practice. Topics include sequences, melodic and rhythmic figuration, leading-tone 7th chords, mixture, applied dominants and modulation, four-part voice leading, large formal structures, harmonic and formal analysis, and musicianship skills including sight singing, rhythmic training, ear training, dictation, and keyboard realization. C-ID MUS 140, MUS 145, CSU, UC

MUSIC-223 Theory and Musicianship IV

- 4 units SC
 • 54 hours lecture/54 hours laboratory per term
 • Prerequisite: MUSIC-222 or equivalent

This course is a study of chromatic harmony, 20th century harmonic practices, large musical structures, harmonic, structural, and stylistic analysis, and musicianship skills including sight singing, rhythmic training, ear training, dictation, and keyboard realization of chromatic and 20th century materials. C-ID MUS 150, MUS 155, CSU, UC

MUSIC-236 Night Jazz Band

1 unit SC

- May be repeated three times
- 72 hours laboratory per term
- *Limitation on enrollment: Audition required. Specific days and times are announced in the Schedule of Classes.*

This course presents the study of big band jazz for performance in classroom and community settings. A variety of styles will be studied including Swing, Hip-Hop, Afro-Cuban, and Be Bop. Community outreach and public performances at jazz clubs, community events and other venues will be emphasized. Occasionally, guest artists will be featured. New literature will be studied each semester. CSU, UC

MUSIC-240 Symphonic Band

1 unit LR

- May be repeated three times
- 72 hours laboratory per term
- *Limitation on enrollment: Audition required. Specific days and times are announced in the Schedule of Classes. Students must be able to perform with rhythmic accuracy, accurate intonation, and appropriate phrasing and expression.*

This course presents the study, rehearsal, and public performance of symphonic band literature, with an emphasis on the development of skills needed to perform within a symphonic band. New literature will be studied each term. C-ID MUS 180, CSU, UC

MUSIC-250 Intermediate Piano I

1 unit SC

- 54 hours laboratory per term
- *Recommended: MUSIC-151 or equivalent*

This course is first in a sequence of courses presenting group study of piano at the intermediate level. The development of technical and interpretive skills essential for playing early-intermediate keyboard music in Period-specific styles will be emphasized. Methods of preparation based on an understanding of period/composer-specific performance practice will be addressed. CSU, UC

MUSIC-251 Intermediate Piano II

1 unit SC

- 72 hours laboratory per term
- *Recommended: MUSIC-250 or equivalent*

This course is for the continued group study of piano at the intermediate level. The class emphasizes the development of technical and interpretive skills essential for playing intermediate keyboard music in Romantic and Contemporary Period styles with attention to interpretation and technique. CSU, UC

MUSIC-252 Piano Ensemble

1 unit SC

- May be repeated three times
- 72 hours laboratory per term
- *Audition required. Specific days and times are announced in the Schedule of Classes.*

This course presents the study and performance of collaborative piano music in a master class format. Students will perform with other pianists, as well as vocalists and instrumentalists from a variety of styles. Instrumentalists and vocalists are encouraged to audition. CSU, UC

MUSIC-255 Piano Repertoire Master Class

1 unit SC

- May be repeated three times
- 72 hours laboratory per term
- *Limitation on enrollment: Audition required. Specific days and times are announced in the Schedule of Classes.*

This class provides a weekly forum for pianists to perform solo repertoire and includes constructive comments and direction in a master class format. Students will produce four in-class and two public performances during the course. New keyboard works from the Baroque, Classical, Romantic, and Contemporary Period repertory will be studied each semester. CSU, UC

MUSIC-256 Pedagogy for Studio Music Teachers

1 unit SC

- 72 hours laboratory per term

This class presents a practical study of pedagogy for the private music studio. The course is designed for current and aspiring studio music teachers of keyboard and instrumental students. Students will explore ways to augment, develop, and review methods of teaching and performance, gaining the ability to successfully work with learning styles of diverse populations. CSU

MUSIC-290 DVC Philharmonic Orchestra

1 unit SC

- May be repeated three times
- 72 hours laboratory per term
- *Limitation on enrollment: Audition required. Specific days and times are announced in the schedule of classes.*

In this course students will study, rehearse, and publicly perform the standard Western classical orchestral literature along with new orchestral compositions. New literature will be studied each term so that different technical and artistic issues are addressed. C-ID MUS 180, CSU, UC

**Associate in arts degree
Music industry studies**

Students completing the program will be able to...

- A. produce recorded music projects.
- B. demonstrate professional behaviors required in the music industry.
- C. apply vocabulary and demonstrate processes that are used in the protection of intellectual property rights.

This associate in arts program prepares students for a career in the music industry. The program has an entrepreneurial focus emphasizing an industry trend requiring artists to be responsible for complete project development. The program is designed to produce well-rounded music industry professionals capable of all aspects of the music production process including recording, marketing, and distribution. The same skill-set also prepares students for careers in specialized areas of the music industry such as digital audio workstation operator, recording engineer, producer, composer, arranger, songwriter, sound designer, artist manager, distributor, and marketing representative.

The DVC music industry studies major is not intended for transfer. Option 1 (DVC General Education) is advised for students who do not intend to transfer. Students may not take a pass/no pass option for major courses. Students who intend to transfer to a four-year baccalaureate program should consult with a counselor regarding specific major preparation requirements at the transfer institution of their choice. Students who intend to transfer are advised to select General Education Option 2 (IGETC) or Option 3 (CSU GE).

Students must complete each of the courses required for the major with a "C" grade or higher. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

<i>major requirements:</i>		<i>units</i>
MUSX-172	Introduction to Electronic Music and MIDI.....	3
MUSX-173	Advanced Electronic Music	3
MUSX-174	Introduction to Music Technology and Pro Tools.....	3
MUSX-175	Advanced Pro Tools	3
MUSX-181	Introduction to the Music Industry.....	3

<i>plus at least 9 units from:</i>		<i>units</i>
MUSIC-121	Introduction to Music Composition	3
MUSX-100	AV Essentials: Systems and Analysis	3
MUSX-101	AV Essentials: Management and Solutions.....	3
MUSX-110	History of Electronic Music.....	3
MUSX-120	Live Sound.....	3
MUSX-124	Introduction to Music Production and Multi-Track Recording.....	3
MUSX-125	Advanced Music Production and Multi-Track Recording.....	3
MUSX-176	Introduction to Ableton Live.....	3
MUSX-177	Introduction to Reason	3
MUSX-178	Music and Sound for Visual Media.....	3
MUSX-182	Songwriting I	3
MUSX-183	Artist Development in the Music Industry	3
MUSX-221	Orchestration and Arranging for Digital Instruments.....	3
MUSX-270	DIY Music Production and Promotion Projects	3
MUSX-282	Songwriting II	3
MUSX-296	Internship in Occupational Work Experience Education in MUSX	1-4

total minimum units for the major 24

**Certificate of achievement
Audio visual technology**

Students completing this program will be able to...

- A. analyze and describe the science and technology for basic audio, visual, and audiovisual systems integration.
- B. set up and test an audio, video, and audiovisual network.
- C. describe and explain the components of sound and hearing, and vision and light, as they pertain to human perception and venue limitations.
- D. display proper customer service and professional behavior.

The audiovisual technician certificate of achievement is designed to prepare students for the Certified Technology Specialist (CTS) certification exam administered by AVIXA International and entry-level jobs in the audiovisual industry. Audiovisual (AV) technicians set up and operate audio and video equipment including microphones, sound speakers, video screens, projectors, video monitors, recording equipment, connecting wires and cables, sound and mixing boards, and related electronic equipment for concerts, sports events, meetings and conventions, presentations, and news conferences. AV systems facilitate essential communications and often require connectivity with various types of networks, requiring AV technicians to work with information technology (IT) teams to set up and maintain that connectivity. This aspect of audiovisual technology is evolving and is influencing changes in the industry.

To earn the certificate of achievement, students must complete each of the required courses with a "C" grade or higher.

<i>required courses:</i>		<i>units</i>
MUSX-100	AV Essentials: Systems and Analysis	3
MUSX-101	AV Essentials: Management and Solutions.....	3
MUSX-120	Live Sound.....	3
MUSX-124	Introduction to Music Production and Multi-Track Recording.....	3
FTVE-120	Introduction to TV Studio Production.....	3
FTVE-160	Introduction to Film Production	3
CNT-103	Voice, Video and Network Cabling	2

<i>plus at least 2 units from:</i>		<i>units</i>
MUSX-296	Internship in Occupational Work Experience Education in MUSX	1-4

total minimum required units 22

**Certificate of achievement
Music industry studies**

Students completing the program will be able to...

- A. produce recorded music projects.
- B. demonstrate professional behaviors required in the music industry.
- C. apply vocabulary and demonstrate processes that are used in the protection of intellectual property rights.

This certificate program prepares students for a career in the music industry. The program has an entrepreneurial focus emphasizing an industry trend requiring artists to be responsible for complete project development. The program is designed to produce well-rounded music industry professionals capable of all aspects of the music production process including recording, marketing, and distribution. The same skill-set also prepares students for careers in specialized areas of the music industry such as digital audio workstation operator, recording engineer, producer, composer, arranger, songwriter, sound designer, artist manager, distributor, and marketing representative.

To earn a certificate of achievement, students must complete the required courses with a “C” grade or higher. Required courses are available in the evening and during the day.

<i>required courses:</i>	<i>units</i>
MUSX-172 Introduction to Electronic Music and MIDI.....	3
MUSX-173 Advanced Electronic Music	3
MUSX-174 Introduction to Music Technology and Pro Tools.....	3
MUSX-175 Advanced Pro Tools	3
MUSX-181 Introduction to the Music Industry.....	3

<i>plus at least 9 units from:</i>	
MUSIC-121 Introduction to Music Composition	3
MUSX-100 AV Essentials: Systems and Analysis	3
MUSX-101 AV Essentials: Management and Solutions.....	3
MUSX-110 History of Electronic Music.....	3
MUSX-120 Live Sound.....	3
MUSX-124 Introduction to Music Production and Multi-Track Recording.....	3
MUSX-125 Advanced Music Production and Multi-Track Recording.....	3
MUSX-176 Introduction to Ableton Live.....	3
MUSX-177 Introduction to Reason	3
MUSX-178 Music and Sound for Visual Media.....	3
MUSX-182 Songwriting I	3
MUSX-183 Artist Development in the Music Industry	3
MUSX-221 Orchestration and Arranging for Digital Instruments.....	3
MUSX-270 DIY Music Production and Promotion Projects	3
MUSX-282 Songwriting II	3
MUSX-296 Internship in Occupational Work Experience Education in MUSX	1-4
total minimum required units	24

MUSX-100 AV Essentials: Systems and Analysis

- 3 units SC
- 36 hours lecture/18 hours laboratory/36 hours laboratory by arrangement per term

This course, along with MUSX-101, present the essentials for AV (Audio Visual) technology. Topics will include the fundamentals of analog signals, digital signals, audio systems and preparation for AV technician certification. CSU

MUSX-101 AV Essentials: Management and Solutions

- 3 units SC
- 36 hours lecture/18 hours laboratory/36 hours laboratory by arrangement per term
 - *Note: Formerly MUSX-200. MUSX-100 and 101 may be taken in any order.*

This course, along with MUSX-100, present the essentials for AV (Audio Visual) technology. Topics will include networks, signal management, control systems, electrical systems, and radio waves. This course prepares students for AV technician certification. CSU

MUSX-110 History of Electronic Music

- 3 units SC
- 54 hours lecture/18 hours laboratory by arrangement per term

This course presents an overview of the history of electronic music from the late 19th century through the 1960s. Topics include electronic musical instruments, electronic musical technology, new musical styles, the introduction of the synthesizer, and the rise of mainstream electronic music. In addition, students will analyze historically significant works from the experimental art music of the mid-20th century through the popular forms of the 1960s. CSU, UC

MUSX-120 Live Sound

- 3 units SC
- 54 hours lecture per term

This course is an overview of live concert sound reinforcement. Topics include basic sound system theory and its application. It also covers individual sound system component operation, including microphones, mixers, effects, power amplifiers, and speaker systems. This course offers opportunities for hands-on experiences in troubleshooting, sound checking, and mixing sound for live performance applications. C-ID CMUS 120X, CSU

MUSX-124 Introduction to Music Production and Multi-Track Recording

- 3 units SC
 • 54 hours lecture per term

This course is designed to give the music student a working knowledge of the principles and techniques of multi-track recording. This course will explore, analyze and evaluate contemporary music production techniques and apply these techniques to real production and recording situations. Emphasis will be on student involvement with various interrelated roles, including that of studio musician, writer/arranger, producer and sound engineer. C-ID CMUS 130X, CSU

MUSX-125 Advanced Music Production and Multi-Track Recording

- 3 units SC
 • 54 hours lecture per term
 • Recommended: MUSX-124 or equivalent

This course extends basic practical music production and multi-track recording skills to include complex projects, integration of acoustic and digital recording elements, and use of current computer software in the mixing process. CSU

MUSX-150 Topics in Music Industry Studies

- .3-4 units SC
 • Variable hours

A supplemental course in music industry studies designed to provide a study of current concepts and problems in music industry studies. Specific topics to be announced in the schedule of classes. CSU

MUSX-172 Introduction to Electronic Music and MIDI

- 3 units SC
 • 36 hours lecture/18 hours laboratory/36 hours laboratory by arrangement per term
 • Note: Formerly MUSIC-172. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This is an introductory course that provides the foundational skills necessary for the creation of electronic music on a digital audio workstation capable of utilizing MIDI (Musical Instrument Digital Interface). Students will gain direct hands-on experience with MIDI-capable synthesizers, tone generators and samplers, digital signal processors, and computer-based music sequencing software. C-ID CMUS 110X, CSU

MUSX-173 Advanced Electronic Music

- 3 units SC
 • 36 hours lecture/18 hours laboratory/36 hours laboratory by arrangement per term
 • Recommended: MUSX-172 or equivalent
 • Note: Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This advanced course builds upon the knowledge and technical skills developed in MUSX-172 Introduction to Electronic Music and Musical Instrument Digital Interface (MIDI). The integration of MIDI and digital audio recording environments will be studied as well as the development of advanced post production skills needed for employment in the music recording industry. Topics will include digital audio recording and editing, effects processing, mixing, and digital audio file management and conversion, sampling, synthesis, and advanced MIDI sequencing. CSU

MUSX-174 Introduction to Music Technology and Pro Tools

- 3 units SC
 • 36 hours lecture/18 hours laboratory/36 hours laboratory by arrangement per term
 • Note: Formerly MUSIC-174. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This introductory course examines the terminology, equipment, techniques, and concepts related to music technology. Topics include principals and practices of sound, MIDI, synthesis, notation, and audio recording utilizing hardware and software platforms. Foundational skills to function within the Pro Tools audio production environment are also covered. C-ID: CMUS 100X, CSU

MUSX-175 Advanced Pro Tools

- 3 units SC
 • 36 hours lecture/18 hours laboratory/36 hours laboratory by arrangement per term
 • Recommended: MUSX-174 or equivalent
 • Note: Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This is an advanced course designed for students who are preparing for employment in the music recording industry. Students will work on special production-oriented projects utilizing a Pro Tools capable digital audio workstation (DAW). Working independently and in teams, students will use the recording production tools that they have developed in prior semesters. Topics include acoustic recording, field recording, sound design, sound for picture, control surfaces, use of external signal processors, surround sound, and advanced mixing techniques. CSU

MUSX-176 Introduction to Ableton Live

3 units SC

- 36 hours lecture/18 hours laboratory/36 hours laboratory by arrangement per term

This course presents skills used within the music production software Ableton Live. Topics will include music sequencing, digital audio recording, software synthesis, sampling, Musical Instrument Digital Interface (MIDI), MIDI mapping, virtual effects, automation, signal flow, and mixing. CSU

MUSX-177 Introduction to Reason

3 units SC

- 36 hours lecture/18 hours laboratory/36 hours laboratory by arrangement per term
- Note: Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This course provides the foundational skills necessary to use Reason, a software application representing a new generation of the stand-alone virtual recording studio, within the music production environment. Topics will include, music sequencing, digital audio recording, software synthesis and sampling, virtual effects, automation, signal flow and drum machines. CSU

MUSX-178 Music and Sound for Visual Media

3 units SC

- 36 hours lecture/18 hours laboratory/36 hours laboratory by arrangement per term
- Recommended: MUSX-174 or equivalent
- Note: Formerly MUSIC-178. Students may petition to repeat this course when software or hardware is changed. Only the first course completed will be applied toward a degree or certificate requirement. Units for both courses will apply towards the 60 units required for the degree.

This class examines the topic of sound for picture through a combination of lecture and hands-on experience with a Digital Audio Workstation that is video capable. Students will develop the skill set needed to create soundtracks for film, television, commercials, and video games. Students will learn the three layers of sound for picture: dialog, music, and sound effects including Foley and ambiance. Each of these layers will be discussed and worked on in depth through lab projects. CSU

MUSX-181 Introduction to the Music Industry

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Formerly Music-181

This course presents an introduction to the music industry, including its evolution, corporate structure, and legal practices. Topics include record production, music publishing, marketing, use of music in film, television, and advertising, touring, development and implementation of business plan, and career strategies. C-ID: CMUS 140X, CSU

MUSX-182 Songwriting I

3 units SC

- 54 hours lecture per term

In this course, students will study the process of songwriting. Songs will be analyzed in terms of chord structure, form, rhythm, melody, harmony, and lyrics. Original compositions and performances will be expected from all students. C-ID CMUS 150X, CSU

MUSX-183 Artist Development in the Music Industry

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents the skills and techniques utilized by music industry professionals responsible for the identification, development, and promotion of successful artists. Tools such as identifying talent, building an artist development team, networking, and structuring a cohesive development plan are explored. Career options, such as artist management, Artists and Repertoire (A&R), sync and licensing, public relations, and social network promotions will be reviewed. This course is also designed to assist the do it yourself (DIY) musician in developing the skills and techniques used in self-management. CSU

MUSX-221 Orchestration and Arranging for Digital Instruments

3 units SC

- 36 hours lecture/18 hours laboratory/36 hours laboratory by arrangement per term
- Recommended: MUSIC-121 or equivalent, MUSIC-122 or equivalent

This course presents the study of production concepts and arranging techniques for a variety of digital instrument sounds. Students will participate in listening, reading, discussion, and arranging exercises to help develop professional-sounding digital arrangements. CSU

MUSX-270 DIY Music Production and Promotion Projects

3 units SC

- 36 hours lecture/18 hours laboratory/36 hours laboratory by arrangement per term
- Recommended: MUSX-124, 172, 174, 181 or equivalents

This course provides students the opportunity to work on special production-oriented projects utilizing the college's internet radio station and record label as a laboratory. Working independently and in teams, students will apply the music production tools and business skills they have developed in prior semesters of the Music Industry Studies program. CSU

MUSX-282 Songwriting II

3 units SC

- 54 hours lecture per term
- Recommended: MUSX-182 or equivalent

This course presents the continued study of the structural, rhythmic, melodic, harmonic, and lyrical components of a song. Original compositions and performances are required of all students. CSU

MUSX-295 Occupational Work Experience Education in MUSX

1-4 units SC

- May be repeated three times
- Variable hours
- Note: In order to enroll in MUSX-295, students must be employed, register for the course, complete an online Employment Form, and participate in an orientation. Employment Form can be accessed at www.dvc.edu/wrkx. Incomplete grades are not awarded for this course.

MUSX-295 is supervised employment that extends classroom learning to the job site and relates to the student's chosen field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Five hours work per week or seventy-five hours work per term is equal to one unit. Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

MUSX-296 Internship in Occupational Work Experience Education in MUSX

1-4 units SC

- May be repeated three times
- Variable hours
- Note: In order to enroll in the MUSX-296 course, students must be interning or volunteering, register for the course, complete an online Employment Form, and participate in an orientation. The Employment Form can be accessed at www.dvc.edu/wrkx. Incomplete grades are not awarded for this course.

MUSX-296 is a supervised internship in a skilled or professional level assignment in the student's major field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Internships may be paid, non-paid, or some partial compensation provided. Five hours work per week or seventy-five hours work per term is equal to one unit (paid) or one unit for four hours work per week or sixty hours per term (unpaid work). Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

NATURAL SCIENCE

See Biological science - BIOSC

NUTRITION – NUTRI

Diablo Valley College is approved by the California Board of Registered Nurses for continuing education credits (Provider #CEP 7992). Nutrition courses that can be used are NUTRI-115 and 160.

Joseph Gorga, Dean
Biological and Health Sciences Division
Physical Sciences Building, Room 263

Possible career opportunities

Courses offered within the nutrition discipline prepare students for numerous career paths. These courses begin to prepare the student for careers in food science, dietetics, nursing, dental hygiene, restaurant management, and sports nutrition as well as many other food related or health related professions. Specific courses also meet the requirements for certain certificate program and majors offered at DVC and other colleges.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in science in nutrition and dietetics for transfer

Students completing the program will be able to...

- analyze data and critique information in the nutritional sciences.
- identify nutrition-related chronic diseases by applying knowledge of nutrient functions, food sources and physiologic systems.
- explain how genetics and life style factors affect nutritional and health status.
- assess a diet for nutrient adequacy using a current computerized dietary analysis database.

The associate in science in nutrition and dietetics for transfer offers students basic knowledge in microbiology, human anatomy and physiology, chemistry and nutrition. It is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major. In order to earn the degree, students must complete 60 required term units of CSU-transferable coursework with a minimum GPA of 2.0. Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system, or those students who do not intend to transfer.

Students with degrees in nutrition and dietetics find employment within a wide range of organizations, such as medical facilities, research labs, government agencies, universities, pharmaceutical companies, and the food industry. This degree is also an excellent preparation for students planning to continue training in medicine, public health and/or other allied health sciences.

The associate in science in nutrition for transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education pattern (CSU GE); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Some courses in the major satisfy both major and CSUGE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

<i>major requirements:</i>	<i>units</i>
CHEM-120 General College Chemistry I.....	5
NUTRI-160 Nutrition: Science and Applications	3
PSYCH-101 Introduction to Psychology	3

plus at least 4 units from:

BIOSC-119 Fundamentals of Microbiology	4
BIOSC-146 Principles of Microbiology	5

plus at least 8 units from:

BIOSC-139 Human Anatomy.....	5
or	
BIOSC-140 Human Physiology	5
BUS-240 Business Statistics.....	3
or	
MATH-142 Elementary Statistics with Probability	4
or	
MATH-144 Statway II.....	4
CHEM-121 General College Chemistry II.....	5
CHEM-226 Organic Chemistry I	5

plus at least 3 units from:

ANTHR-130 Cultural Anthropology	3
CULN-120 Fundamentals of Cuisine	5
NUTRI-130 Food and Nutrition: Cross Cultural Perspectives.....	3
SOCIO-120 Introduction to Sociology.....	3

total minimum units for the major 26

NUTRI-100 Introduction to the Nutrition Professions

- 1 units SC
- 18 hours lecture per term

This course is designed to assist students in making educational and career decisions for a wide spectrum of nutrition-related occupations. It provides an overview of nutrition-related careers and their respective career paths, educational and skill requirements, professional responsibility, and certification and licensing requirements. Skills required by nutrition-related careers, such as emphasizing personal attributes, demonstrating professionalism, engaging in teamwork, and building communication skills will be covered. CSU

NUTRI-115 Nutrition and Health: Personal Applications

- 3 units SC
- 54 hours lecture per term
 - Recommended: Eligibility for ENGL-122 or equivalent
 - Credit by Examination option available.

This course is an introduction to nutrition designed for a variety of students. The focus is on the application of basic nutrition concepts to personal life skills. The interface of culture, socioeconomic conditions and personal behaviors with nutritional health will be examined. Practical application of the course content includes, personal nutrition assessments and diet planning. CSU, UC (credit limits may apply to UC - see counselor)

NUTRI-120 Sports Nutrition: Fueling the Athlete

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course includes the integration of the principles of nutrition and physical exercise in order to optimize physical fitness and athletic performance. Topics will include nutritional needs of the athlete; diet planning to optimize physical performance; diet analysis; energy systems and metabolism; efficiency and potential use of nutritional ergogenics; dietary supplements; sports drinks; the role of protein, carbohydrates, fats, vitamins, minerals and water in physical performance; body composition including weight gain; weight loss and weight maintenance; eating disorders, and the specific nutritional needs for different types of athletes and sports events. CSU

NUTRI-130 Food and Nutrition: Cross Cultural Perspectives

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course examines the regional, ethnic, cultural, gender, religious, historical, and social influences on food patterns, cuisines, and health and healing, as well as how food is viewed as an expression of cultural diversity. Students will explore traditional foods of geographic areas and cultures. The geographic factors in food availability, global food issues, dietary habits, and socioeconomic influences on food culture, and nutrition problems of various ethnic groups will also be examined. The course also addresses nutrition consequences of ethnic food choices and sanitation and safety practices. CSU, UC

NUTRI-150 Topics in Nutrition

.3-4 units SC

- Variable hours

This course will supplement topics in the nutritional sciences, dietetics, food service and food technology. Specific topics will be announced in the schedule of classes. CSU

NUTRI-160 Nutrition: Science and Applications

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course covers scientific concepts of nutrition related to the function of nutrients in basic life processes and current health issues with emphasis on individual needs. Course content is appropriate for majors in Dental Hygiene, Nutritional Science, Nursing and Health Science. C-ID NUTR 110, CSU, UC (credit limits may apply to UC - see counselor)

NUTRI-299 Student Instructional Assistant

.5-3 units SC

- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

OCEANOGRAPHY – OCEAN

Joseph Gorga, Dean

Biological and Health Sciences Division

Physical Sciences Building, Room 263

Possible career opportunities

The diverse range of subjects examined and the multi-disciplinary approach taken within the oceanography program prepares students for a variety of career paths. Courses focus on biological, physical, geological and chemical aspects of oceanography. Many oceanographers are employed as researchers and/or educators by public and private research institutions, universities, and colleges. Students graduating with degrees in oceanography or aquatic science fields may work as laboratory or field technicians; water monitoring specialists; for environmental protection, consulting and nonprofit firms; as observers aboard fishing vessels; or in the natural resource management fields. Limited numbers are employed to work with marine animals at aquariums, theme parks, or research facilities. Most career options are likely to require more than two years of college study.

OCEAN-101 Fundamentals of Oceanography

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: This course does not include a laboratory. Students requiring or wanting a laboratory to accompany this course should enroll in OCEAN 102. Students who have successfully completed OCEAN-102 should not enroll in OCEAN-101. Students who have successfully completed OCEAN-102 will not receive credit for OCEAN-101.

This course is an introduction to the geological, chemical, physical and biological aspects of the world's oceans and interactions amongst these different aspects. Topics include: The history of oceanography; historic and modern oceanographic instruments; plate tectonics and marine geology; the marine-land interface; ecological problems of the local bay, estuary, delta and state wide water resources; oceans' roles as a dominant influence on the earth, its climate, and the lives of its inhabitants; food, drug, and mineral energy resources from the sea; global and local ocean resource management, aquacultural techniques and practices, and preservation of marine environments; and the deep sea: properties, animals and adaptations. CSU, UC (credit limits may apply to UC - see counselor)

OCEAN-102 Fundamentals of Oceanography with Laboratory

4 units SC

- 54 hours lecture/54 hours laboratory per term
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Students who have successfully completed OCEAN-101 should not enroll in OCEAN-102. Students who have successfully completed OCEAN-101 will not receive credit for OCEAN-102.

This course is an introduction to the geological, chemical, physical and biological aspects of the world's oceans and interactions among them. Topics will include: the history of oceanography; historic and modern oceanographic instruments; plate tectonics and marine geology; the marine-land interface; ecological problems of the local bay, estuary, delta and state wide water resources; oceans' roles as a dominant influence on the earth, its climate, and the lives of its inhabitants; food, drug, and mineral energy resources from the sea; global and local ocean resource management, aquacultural techniques and practices, and preservation of marine environments; and the deep sea: properties, animals and adaptations. In the laboratory, students will experience the role of the oceanographer as they prepare for, participate in, and analyze data collected on research trips to local bay environments. CSU, UC (credit limits may apply to UC - see counselor)

OCEAN-150 Topics in Oceanography

.3-4 units SC

- Variable hours

A supplemental course in oceanography to provide a study of current concepts and problems in oceanography and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

OCEAN-299 Student Instructional Assistant

.5-3 units SC

- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

PERSIAN – PERSN

Toni Fannin, Dean

Applied and Fine Arts Division

Business and Foreign Language Building, Room 204

Possible career opportunities

The study of Persian can open up opportunities in communications, foreign trade and banking, transportation, government, the Foreign Service, tourism, library services, teaching, professional translating, journalism, and all levels of education, including university teaching. Most foreign language careers require more than two years of study.

PERSN-120 First Term Persian

5 units SC

- 90 hours lecture per term
- Note: This course is equivalent to two years of high school study.

This course provides an introduction to the Persian language and the culture of Persian-speaking countries. Topics include the four language skills: speaking, listening, reading, and writing. Emphasis is placed on active use of the language in class as well as basic communicative functions and structures. CSU, UC

PERSN-121 Second Term Persian

5 units SC

- 90 hours lecture per term
- Prerequisite: PERSN-120 or two years of high school study or equivalent
- Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.

This is the second course in a sequence of Persian language courses. Topics will include understanding, speaking, reading and writing of the Persian language. The course will continue to expand vocabulary, communicative functions and structures and further examine the cultures of the Persian-speaking countries. CSU, UC

PERSN-150 Topics in Persian

- .3-4 units SC
- Variable hours

A supplemental course in Persian to provide a study of current concepts and problems in Persian and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

PERSN-299 Student Instructional Assistant

- .5-3 units SC
- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

The Philosophy Department views critical thinking and reflection about distinctively human issues to be central to human existence and well-being. Students able to think and articulate viewpoints clearly and in an informed fashion not only enhance their own life, but contribute significantly to interpersonal relationships and social existence, including in the realm of political, economic, cultural, and social institutions.

The program prepares students with effective thinking and communication skills, which are useful in many fields including business, sales, writing, teaching, legal profession, political campaigning, news reporting, and other fields in which critical thinking and eloquent articulation of viewpoints is required

Although this program is not designed as a transfer program, selected courses in the program do meet general education and lower division requirements for the bachelor of arts degree at many California State University and University of California campuses. Consult with department faculty and the counseling department for more information. DVC philosophy students who intend to transfer must consult with a program adviser or counselor to ensure that the requirements for transfer to the baccalaureate institution of their choice are met.

Students who intend to transfer area advised to select either General Education Option 2 (IGETC) or Option 3 (CSU GE). General Education Option 1 (DVC General Education) is appropriate for students who do not intend to transfer.

To earn an associate in arts degree with a major in philosophy, students must complete five core courses (15 units total) supplemented by a set of restricted electives from which students select one course (3 units). Students must complete each course used to meet a major requirement with a grade of "C" or higher and also maintain an overall GPA of 2.5 or higher in the coursework required for the major. Certain courses may satisfy both major and general education requirements; however, the units are only counted once.

PHILOSOPHY – PHILO

Toni Fannin, Dean
 Applied and Fine Arts Division
 Business and Foreign Language Building, Room 204

Possible career opportunities

For those who wish for a career in philosophy, teaching and research at the university level is an attractive option. There is also an emerging demand for experts in applied ethics, especially in the areas of medical, business, environmental ethics, law, politics and information technology. Most career options will require an advanced degree.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in arts degree in philosophy

Students completing the program will be able to...

- use their critical thinking skills to analyze and evaluate both formally and informally, arguments and positions taken regarding various philosophical topics.
- compare and contrast various philosophical perspectives, both historically and in the context of larger philosophical texts.
- recognize and explain the integration of philosophical perspectives and ideas in selected cultural, historical, and thematic contexts.
- demonstrate their ability to articulate clearly in oral and written form an objective analysis of major works from the various philosophic and religious literatures.

<i>major requirements:</i>	<i>units</i>
PHILO-120 Introduction to Philosophy.....	3
PHILO-122 Introduction to Ethics.....	3
PHILO-130* Logic and Critical Thinking	3
PHILO-224 History of Western Philosophy: Pre-Socratic to Medieval Period	3
PHILO-225 History of Western Philosophy: Descartes to Present	3

<i>plus at least 3 units from:</i>	
PHILO-140 Introduction to Judeo-Christian Tradition	3
PHILO-141 Introduction to the Philosophy of Religion	3
PHILO-160 Introduction to Social and Political Philosophy	3
PHILO-220 Comparative Religion.....	3

total minimum units for the major 18

**This course has a prerequisite of ENGL-122/122A.*

Associate in arts in philosophy for transfer

Students completing the program will be able to...

- A. use their critical thinking skills to analyze and evaluate both formally and informally, arguments and positions taken regarding various philosophical topics.
- B. compare and contrast various philosophical perspectives, both historically and in the context of larger philosophical texts.
- C. recognize and explain the integration of philosophical perspectives and ideas in selected cultural, historical, and thematic contexts.
- D. demonstrate their ability to articulate clearly in oral and written form an objective analysis of major works from the various philosophic and religious literatures.

The humanities and philosophy department views critical thinking and reflection about distinctively human issues to be central to human existence and well-being. Students who are able to think and articulate viewpoints clearly and in an informed fashion not only enhance their own lives, but contribute significantly to interpersonal relationships and social existence, including in the realm of political, economic, cultural, and social institutions.

The associate in arts in philosophy for transfer is intended for students who plan to complete a bachelor’s degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major. The associate in arts in philosophy for transfer is consistent with the mission of the community college to assist students in achieving a seamless transfer to the CSU system.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education-Breadth pattern (CSU GE-Breadth); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of “C” or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor’s degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Students must complete each course used to meet a major requirement with a “C” grade or higher. Some courses in the major satisfy both major and CSUGE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

major requirements:

<i>at least 3 units from:</i>		<i>units</i>
PHILO-120	Introduction to Philosophy	3
PHILO-122	Introduction to Ethics	3

plus at least 3 units from:

PHILO-130*	Logic and Critical Thinking	3
PHILO-170	Symbolic Logic	3

plus at least 3 units from any course above not already used or:

PHILO-224	History of Western Philosophy: Pre-Socratic to Medieval Period	3
PHILO-225	History of Western Philosophy: Descartes to Present	3

plus at least 6 units from any course above not already used or:

PHILO-141	Introduction to the Philosophy of Religion	3
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plus at least 3 units from any course above not already used or:

PHILO-160	Introduction to Social and Political Philosophy	3
PHILO-220	Comparative Religions	3

total minimum units for the major 18

**This course has a prerequisite of ENGL-122/122A.*

**Certificate of achievement
Philosophy**

Students completing the program will be able to...

- A. use their critical thinking skills to analyze and evaluate both formally and informally, arguments and positions taken regarding various philosophical topics.
- B. compare and contrast various philosophical perspectives, both historically and in the context of larger philosophical texts.
- C. recognize and explain the integration of philosophical perspectives and ideas in selected cultural, historical, and thematic contexts.
- D. demonstrate their ability to articulate clearly in oral and written form an objective analysis of major works from the various philosophic and religious literatures.

To earn a certificate of achievement in philosophy, students must complete four core courses (12 units). The certificate program courses also count towards the “major” that is required for the associate in arts degree in philosophy.

required courses:

<i>required courses:</i>		<i>units</i>
PHILO-120	Introduction to Philosophy	3
PHILO-122	Introduction to Ethics	3
PHILO-130*	Logic and Critical Thinking	3
PHILO-224	History of Western Philosophy: Pre-Socratic to Medieval Period	3

total minimum required units 12

**This course has a prerequisite of ENGL-122/122A.*

PHILO-120 Introduction to Philosophy

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course carefully and critically examines the most basic of human beliefs. Logic, epistemology, metaphysics, value theory (ethics and aesthetics), and philosophy of religion are explored at an introductory level. The vocabulary of philosophy and techniques of inquiry are included. C-ID PHIL 100, CSU, UC

PHILO-122 Introduction to Ethics

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is a systematic examination of major ethical theories, the nature of moral reasoning, as well as the evaluation of contemporary moral issues such as abortion, euthanasia, and capital punishment. C-ID PHIL 120, CSU, UC

PHILO-130 Logic and Critical Thinking

3 units SC

- 54 hours lecture per term
- Prerequisite: ENGL-122 or equivalent

This course introduces students to the principles of inductive and deductive inference and their practical applications in everyday situations such as problem solving and evaluation of arguments. The uses of language, formal and informal fallacies, syllogistic argument forms and scientific method will be examined. Additional emphasis is placed on developing the ability to integrate the principles of critical thinking with the techniques of effective written argument. C-ID PHIL 110, CSU, UC

PHILO-140 Introduction to Judeo-Christian Tradition

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents a critical examination of history, theology, literature, and traditions of Judaism and Christianity. CSU, UC

PHILO-141 Introduction to the Philosophy of Religion

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents an introduction to the nature of religion. Emphasis is placed on the analysis of central themes including revelation, faith, and miracles and issues such as the problem of evil, and the relationship between religion and science. CSU, UC

PHILO-145 Introduction to Asian Philosophy

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL 122 or equivalent

This course presents an introduction to the major philosophies of Asia. Topics include the primary philosophies of India, China, and Japan. Emphasis will be on the metaphysical, epistemological, and ethical traditions in India, China, and Japan. CSU, UC

PHILO-150 Topics in Philosophy

.3-4 units SC

- Variable hours

A supplemental course in philosophy to provide a study of current concepts and problems in philosophy and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

PHILO-160 Introduction to Social and Political Philosophy

3 units SC

- 54 hours lecture per term
- Recommended: PHILO-120 or equivalent

This course is an introduction to the major authors, central issues, and political and philosophical perspectives as presented through classical and contemporary reading selections. Philosophers studied include Plato, Aristotle, Hobbes, Locke, Mill, Rawls and Nozick. Topics include the nature of democracy, fascism, justice, rights, law, liberty, political authority, political principles, and consequences, with an emphasis on understanding these political theories as normative rather than descriptive. Critical analysis of each perspective in political philosophy will be engaged. CSU, UC

PHILO-170 Symbolic Logic

3 units SC

- 54 hours lecture per term
- Recommended: PHILO-130 or equivalent; eligibility for ENGL-122 or equivalent

This course introduces the principles of valid deductive reasoning and includes a study of formal techniques of sentential and predicate logic. Students will learn how to use truth-tables for propositional connectives and interpretations for statements of first-order logic using mathematical theory. The conclusion of the course will engage students in issues such as the completeness of propositional calculus, ifuzzy logic, and deontic logic. C-ID PHIL 210, CSU, UC

PHILO-220 Comparative Religion

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

In this course, religious belief, experience, and ethical teachings of living religions of the world are examined, discussed and compared. Religions, which may be discussed, include Hinduism, Jainism, Buddhism, Sikhism, Zoroastrianism, Judaism, Christianity, and Islam. CSU, UC

PHILO-224 History of Western Philosophy: Pre-Socratic to Medieval Period

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course examines ancient philosophy with emphasis on the development of Greek philosophy from the Pre-Socratics through Aristotle and may also include Hellenistic, Roman, medieval or non-western thinkers. C-ID PHIL 130, CSU, UC

PHILO-225 History of Western Philosophy: Descartes to Present

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course examines continental rationalism (Descartes, Spinoza, and Leibniz), British empiricism (Locke, Berkeley, and Hume), Kant, 19th century and 20th century philosophy. C-ID PHIL 140, CSU, UC

PHILO-298 Independent Study

.5-3 units SC

- Variable hours
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

PHILO-299 Student Instructional Assistant

.5-3 units SC

- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

PHOTOGRAPHY

See Art - ART

PHYSICAL SCIENCE – PHYSC

Joseph Gorga, Dean

Physical Sciences and Engineering Division

Physical Sciences Building, Room 263

Possible career opportunities

Physical science focuses on concepts, processes and the inter-relationship of physical phenomena as studied in any combination of the physical science disciplines, such as astronomy, earth science and physics. There are several career options in academics - research and teaching, as well as applied science and industry. Many of the career options require advanced and specialized training in one or a combination of the sub-disciplines of physical science.

PHYSC-112 Fundamentals of Physical Science

3 units SC

- 54 hours lecture per term
- Prerequisite: MATH-090 or MATH-090E or MATH-090SP or equivalent
- Recommended: Eligibility for ENGL-122 or equivalent

This course is an overview of the physical sciences of astronomy, physics, chemistry and earth science. The principles studied will be used to explain current knowledge of the universe and our physical environment. CSU, UC (credit limits may apply to UC - see counselor)

PHYSC-298 Independent Study

.5-3 units SC

- Variable hours
- Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

PHYSICS – PHYS

Joseph Gorga, Dean
Physical Sciences and Engineering Division
Physical Sciences Building, Room 263

Possible career opportunities

Career opportunities available for physicists include: research in industry, universities, and national laboratories. Many teach in high schools, colleges, and universities. Others can be found in hospitals, the military, oil fields, power plants, in the astronaut corps, in museums, in patent law firms, and in management positions in business and government. A background in physics can help a technical writer or a computer programmer. Most career options require more than two years of college study.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in science in physics for transfer

Students completing the program will be able to...

- solve problems in mechanics, including mechanical waves and fluids, using calculus.
- solve problems in thermodynamics using calculus.
- solve problems in electromagnetism using calculus.
- solve problems in optics using calculus.
- solve problems in special relativity using calculus.
- solve problems in quantum physics, including its applications, using calculus and differential equations.

The associate in science in physics for transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education pattern (CSU GE); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Some courses in the major satisfy both major and CSU GE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

<i>major requirements:</i>		<i>units</i>
MATH-192	Analytic Geometry and Calculus I	5
MATH-193	Analytic Geometry and Calculus II	5
MATH-292	Analytic Geometry and Calculus III	5
PHYS-130	Physics for Scientists and Engineers A: Mechanics and Wave Motion.....	4
PHYS-230	Physics for Scientists and Engineers B: Heat and Electro-Magnetism.....	4
PHYS-231	Physics for Scientists and Engineers C: Optics and Modern Physics.....	4
total minimum units for the major		27

PHYS-110 Elementary Physics

3 units LR

- 54 hours lecture per term
- Prerequisite: MATH-120 or MATH-120SP or equivalent
- Recommended: Concurrent enrollment in PHYS-111 and eligibility for ENGL-122 or equivalents
- Note: Students specifically interested in focusing on modern physics should take PHYS-113.

This course provides an overview of physics. Forces, motion, heat, electricity and magnetism, optics and modern physics will be discussed. This course emphasizes topics in classical physics. CSU, UC (credit limits may apply to UC - see counselor)

PHYS-111 Physics Laboratory

1 unit LR

- 54 hours laboratory per term
- Prerequisite: PHYS-110 or equivalent (may be taken concurrently)
- Recommended: Eligibility for ENGL-122 or equivalent

This laboratory course will include measurement and analysis of mechanical, thermal, electrical and optical phenomena. CSU, UC (credit limits may apply to UC - see counselor)

PHYS-113 Elementary Modern Physics: From Atoms to the Big Bang

3 units SC

- 54 hours lecture per term
- Prerequisite: MATH-120 or equivalent

This course is an introduction to the ideas of modern physics. Topics will include the relativity of space and time, Einstein's theory of gravity, the Big Bang Theory of the origin of the universe, the birth and death of stars, black holes, photons, atoms, quantum uncertainty, the nucleus, radioactivity, and nuclear energy. The emphasis will be on concepts, not mathematical problem solving. CSU, UC

PHYS-120 General College Physics I

4 units LR

- 54 hours lecture/72 hours laboratory per term
- Prerequisite: MATH-121 or equivalent
- Recommended: Eligibility for ENGL-122 or equivalent

This course is the first semester of a two-semester sequence (PHYS-120 and PHYS-121) designed for majors other than engineering and physical sciences such as life science and allied health majors among others. It includes an algebra-based lecture and laboratory study of mechanics, heat and sound. C-ID PHYS 105, CSU, UC (credit limits may apply to UC-see counselor)

PHYS-121 General College Physics II

4 units LR

- 54 hours lecture/72 hours laboratory per term
- Prerequisite: PHYS-120 or equivalent

This is a second term college physics course for life science majors and others. Within lecture and laboratory, the study of electricity, magnetism, light and modern physics will be covered. C-ID PHYS 110, CSU, UC (credit limits may apply to UC - see counselor)

PHYS-124 Calculus Supplement for Physics 120

.5 unit LR

- 9 hours lecture per term
- Prerequisite: PHYS-120 (may be taken concurrently) and MATH-182 or MATH-192 (may be taken concurrently) or equivalents
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: The calculus component may be required for certain transfer majors

In this course, students will apply calculus techniques to the topics learned in PHYS-120 General College Physics I. CSU, UC (credit limits may apply to UC - see counselor)

PHYS-125 Calculus Supplement for Physics 121

.5 unit LR

- 9 hours lecture per term
- Prerequisite: PHYS-121; and MATH-183 or MATH-193 (all may be taken concurrently) or equivalents
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: The calculus component may be required for certain transfer majors

This course adds calculus to the mathematical techniques used in PHYS-121-General College Physics II. CSU, UC (credit limits may apply to UC - see counselor)

PHYS-129 Introductory Physics for Engineers

4 units LR

- 54 hours lecture/72 hours laboratory per term
- Co-requisite: MATH-192 or equivalent (may be taken previously)
- Recommended: Eligibility for ENGL-122 or equivalent
- Note: For those students who have not recently completed a full year of high school physics, the physics department strongly recommends completion of PHYS-129 before enrolling in PHYS-130

This course is designed for engineering, physics and chemistry majors. The student will be introduced to basic vocabulary and techniques of studying physics. It presents a study of vectors, motion, forces, momentum, energy and rotating systems. One or more additional topics such as geometric optics, electricity, the atomic nature of matter or the study of fluids will be presented. CSU, UC (credit limits may apply to UC - see counselor)

PHYS-130 Physics for Engineers and Scientists A: Mechanics and Wave Motion

4 units LR

- 54 hours lecture/72 hours laboratory per term
- Prerequisite: PHYS-129 or High School Physics or equivalent
- Co-requisite: MATH-193 (may be taken previously) or equivalent
- Recommended: Eligibility for ENGL-122 or equivalents
- Note: For those students who have not recently completed a full year of high school physics completion of PHYS-129 is strongly recommended.

This course is designed for engineering and physical science majors (such as physics, chemistry, and geology). It presents a lecture and laboratory study of classical mechanics: vectors, particle kinematics, Newton's laws, equilibrium of rigid bodies, work and energy, gravitation, fluids, momentum, rotational kinematics and dynamics, and oscillations and waves in elastic media. C-ID PHYS 205, CSU, UC (credit limits may apply to UC - see counselor)

PHYS-150 Topics in Physics

.3-4 units SC

- Variable hours

A supplemental course in physics to provide a study of current concepts and problems in physics. Specific topics will be announced in the schedule of classes. CSU

PHYS-230 Physics for Engineers and Scientists B: Heat and Electro-Magnetism

4 units LR

- 54 hours lecture/72 hours laboratory per term
- Prerequisite: PHYS-130 or equivalent; MATH-292 (may be taken concurrently) or equivalent
- Recommended: Eligibility for ENGL-122 or equivalent

This course is a continuation of PHYS-130 and presents the study of thermodynamics, electricity, and magnetism. Topics include temperature, heat the first and second laws of thermodynamics, kinetic theory of gases, electric field and electric potential of charges, capacitance, magnetic field of moving charges, current, voltage, resistance, induced electric and magnetic fields, Maxwell's equations and plane electro-magnetic waves. C-ID PHYS 210, CSU, UC (credit limits may apply to UC-see counselor)

PHYS-231 Physics for Engineers and Scientists C: Optics and Modern Physics

4 units LR

- 54 hours lecture/72 hours laboratory per term
- Prerequisite: PHYS-230 or equivalent; MATH-294 (may be taken concurrently) or equivalent
- Recommended: Eligibility for ENGL-122 or equivalent

This course is a continuation of PHYS-130 and PHYS-230 and presents the study of optics and modern physics. Topics include geometric and wave optics, special relativity, quantum physics, atomic and molecular physics, condensed matter physics, and nuclear physics. C-ID PHYS 215, CSU, UC (credit limits may apply to UC-see counselor)

PHYS-299 Student Instructional Assistant

.5-3 units SC

- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

PLUMBING – PLUMB

Joseph Gorga, Dean

Physical Sciences and Engineering Division

Physical Sciences Building, Room 263

Possible career opportunities

In collaboration with Plumbers and Steamfitters Union Local 159 email: info@plumbers159.org and Plumbers-Steamfitters-Refrigeration Union Local 342 www.ua342.org, DVC offers two five-year apprenticeship programs: steamfitting and plumbing. Apprenticeship is training that is designed to prepare an individual for a career in the skilled crafts and trades. Apprentices develop technical skills, experience the sharing of assignments and see how technical tasks relate specifically with theoretical knowledge and interpretation. Apprentices earn a wage while learning. Enrollment in this program is restricted. You must be registered as an apprentice with the State of California to participate in the program and accepted into the apprenticeship program by our Union partners.

Plumbers-Steamfitters-Refrigeration Union Local 342,
Joint Apprenticeship and Journeymen Training Office

935 Detroit Avenue
Concord, CA 94518-2501
925-686-0730

Plumbers and Steamfitters Local 159

1308 Roman Way
Martinez, CA 94553
800-443-0220 or
925-229-0883
email: info@plumbers159.org

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

**Associate in science degree
Plumbing**

Students completing the program will be able to...

- discuss the role the plumber plays in a safe work site.
- apply mathematical formulae used in plumbing.
- demonstrate knowledge of the hazards of cross connection in the potable water system.
- use the proper method to install medical gas piping.
- explain the responsibilities of the many agencies, departments, and specific districts that require variances or permits for construction.
- demonstrate advanced worksite operations including T-drilling, hot taps, and freeze pipe installation.

Upon successful completion of the program, the student will have the necessary knowledge and skill for a career in residential, commercial, and industrial plumbing. Reading of blueprints, layout, estimating, installation of piping systems and fixtures, repair of supply and waste water systems are just some of the skills that will be mastered during this program.

A student is eligible for graduation with an associate in science degree after the satisfactory completion of a minimum of 60 units.

To earn an associate in science degree with a major in plumbing, students must complete each course used to meet a major requirements with a "C" grade or higher and complete general education requirements as listed in the catalog. Degree requirements can be completed by attending classes in the day, the evening, or both. Certain courses may satisfy both major and general education requirements; however, the units are only counted once. General Education Option 1 (DVC General Education) is appropriate for students who do not intend to transfer. DVC Plumbing students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to four-year institutions of their choice are met. Students who intend to transfer are advised to select either General Education Option 2 (IGETC) or Option 3 (CSU GE).

Plumbing

major requirements: units

complete at least 30 units from:

PLUMB-110	OSHA-CPR.....	1.5-2.5
PLUMB-111	Trade Mathematics.....	1.5-2.5
PLUMB-112	Water Supply Systems.....	1.5-2.5
PLUMB-113	Sewage Disposal.....	1.5-2.5
PLUMB-114	Plumbing System Service and Repair	1.5-2.5
PLUMB-115	Construction Management in Plumbing..	1.5-3
PLUMB-116	Medical Gas and Vacuum Systems	1.5-2.5
PLUMB-117	Related Science in the Piping Trades.....	1.5-2.5
PLUMB-118	Beginning Drawing and Plan Reading for the Piping Trades	1.5-2.5
PLUMB-119	Advanced Drawing in the Piping Trades..	1.5-2.5
PLUMB-120	Plumbing Tool Workshop I	1.5-2.5
PLUMB-121	Plumbing Tool Workshop II	1.5-2.5
PLUMB-122	Plumbing Code I.....	1.5-2.5
PLUMB-123	Plumbing Code II.....	1.5-2.5
PLUMB-124	Welding for Plumbers.....	1.5-2.5
PLUMB-125	Electricity for Plumbing	1.5-2.5
PLUMB-126	Gas Installation in Plumbing	1.5-2.5
PLUMB-127	Backflow Prevention	1.5-2.5
PLUMB-128	Plumbing Fixtures	1.5-2.5
PLUMB-129	Certification Preparation.....	1.5-2.5

total minimum units for the major **30**

Certificate of achievement Plumbing

Students completing the program will be able to...

- A. discuss the role the plumber plays in a safe work site.
- B. apply mathematical formulae used in plumbing.
- C. demonstrate knowledge of the hazards of cross connection in the potable water system.
- D. use the proper method to install medical gas piping.
- E. explain the responsibilities of the many agencies, departments, and specific districts that require variances or permits for construction.
- F. demonstrate advanced worksite operations including T-drilling, hot taps, and freeze pipe installation.

required courses: units

complete at least 28 units from:

PLUMB-112	Water Supply Systems.....	1.5-2.5
PLUMB-113	Sewage Disposal.....	1.5-2.5
PLUMB-114	Plumbing System Service and Repair	1.5-2.5
PLUMB-115	Construction Management in Plumbing..	1.5-3
PLUMB-116	Medical Gas and Vacuum Systems	1.5-2.5
PLUMB-117	Related Science in the Piping Trades.....	1.5-2.5
PLUMB-118	Beginning Drawing and Plan Reading for the Piping Trades	1.5-2.5
PLUMB-119	Advanced Drawing in the Piping Trades..	1.5-2.5
PLUMB-120	Plumbing Tool Workshop I	1.5-2.5
PLUMB-121	Plumbing Tool Workshop II	1.5-2.5
PLUMB-122	Plumbing Code I.....	1.5-2.5
PLUMB-123	Plumbing Code II.....	1.5-2.5
PLUMB-124	Welding for Plumbers.....	1.5-2.5
PLUMB-125	Electricity for Plumbing	1.5-2.5
PLUMB-126	Gas Installation in Plumbing	1.5-2.5
PLUMB-127	Backflow Prevention	1.5-2.5
PLUMB-128	Plumbing Fixtures	1.5-2.5
PLUMB-129	Certification Preparation.....	1.5-2.5

total minimum required units **28**

Certificate of accomplishment Plumbing

Students completing the program will be able to...

- A. discuss the role the plumber plays in a safe work site.
- B. apply mathematical formulae used in plumbing.
- C. demonstrate knowledge of the hazards of cross connection in the potable water system.
- D. use the proper method to install medical gas piping.

required courses: units

complete at least 10 units from:

PLUMB-110	OSHA-CPR.....	1.5-2.5
PLUMB-111	Trade Mathematics.....	1.5-2.5
PLUMB-112	Water Supply Systems.....	1.5-2.5
PLUMB-113	Sewage Disposal.....	1.5-2.5
PLUMB-114	Plumbing System Service and Repair	1.5-2.5
PLUMB-115	Construction Management in Plumbing..	1.5-3
PLUMB-116	Medical Gas and Vacuum Systems	1.5-2.5

total minimum required units **10**

PLUMB-110 OSHA-CPR

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section. This class is the same as STMFT-110.

This course covers the regulations governed by OSHA 30 that provide and recognize safe work practices. The student will receive certification in Cardio-Pulmonary Resuscitation and First Aid.

PLUMB-111 Trade Mathematics

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section. This class is the same as STMFT-111.

This course covers the approaches to mathematical problem solving used in pipe fitting and metric conversion.

PLUMB-112 Water Supply Systems

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course presents an introduction to the principles and methods of water distribution and treatment regarding water supply systems.

PLUMB-113 Sewage Disposal

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

The course introduces the principles and methods of sewage disposal for residential and commercial buildings.

PLUMB-114 Plumbing System Service and Repair

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course presents an introduction to the planning, troubleshooting and repair of plumbing systems.

PLUMB-115 Construction Management in Plumbing

1.5-3 unitsLR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course offers an introduction to construction management in plumbing. Topics include administrative procedures, plans and specifications, scheduling, permits, variances, and forms of communication.

PLUMB-116 Medical Gas and Vacuum Systems

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course covers the requirements and standards of medical gas and vacuum system installation and maintenance.

PLUMB-117 Related Science in the Piping Trades

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section. This class is the same as STMFT-117.

This course covers the scientific and mechanical principles that are basic to the work of the piping industry.

PLUMB-118 Beginning Drawing and Plan Reading for the Piping Trades

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section. This class is the same as STMFT-118.

This course covers the interpretation of drawings and sketches associated with piping installation.

PLUMB-119 Advanced Drawing in the Piping Trades

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section. This class is the same as STMFT-119.

Students in this course will interpret, coordinate and make drawings and sketches associated with piping installation.

PLUMB-120 Plumbing Tool Workshop I

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course covers the practical and theoretical aspects of plumbing tool processes. Topics include the proper use of basic trade tools for processes such as soldering, brazing, threading pipes, and installing drainage. Safe work practices will be emphasized.

PLUMB-121 Plumbing Tool Workshop II

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course covers the practical and theoretical aspects of plumbing tool processes. Topics will include the proper use and of advanced trade tools for processes such as T-drilling, hot taps, and freeze pipe installation. Safe work practices will be emphasized.

PLUMB-122 Plumbing Code I

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course presents articles 100-900 of the Uniform Plumbing Code.

PLUMB-123 Plumbing Code II

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course presents articles 901-1622 of the Uniform Plumbing Code.

PLUMB-124 Welding for Plumbers

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course presents the techniques and methods of welding for plumbers. Standard safety practices from the Occupational Safety and Health Administration (OSHA), American National Standards Institute (ANSI), and Compliance, Safety, Accountability (CSA) are emphasized.

PLUMB-125 Electricity for Plumbing

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course introduces the specialized knowledge and techniques required for the effective operation and function of electrical systems for plumbing applications.

PLUMB-126 Gas Installation in Plumbing

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course presents the principles and installation methods of gas piping systems. Safety practices are emphasized.

PLUMB-127 Backflow Prevention

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course presents the approved methods and appropriate devices to ensure backflow and cross-connection are eliminated.

PLUMB-128 Plumbing Fixtures

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course presents modern plumbing fixtures and appliances. Topics include proper selection, installation, and maintenance.

PLUMB-129 Certification Preparation

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course presents the information necessary to sit for the state plumbing certification examination. The course will expand upon information presented in other plumbing courses within the program to emphasize knowledge required for passing this exam.

PLUMB-130 Green Awareness

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

The course provides an overview of “green” concepts as applied to mechanical systems and high-efficiency plumbing technologies that support water conservation.

PLUMB-131 Blueprint Reading for Plumbing

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the union local responsible for the section.

This course introduces the interpretation of blueprints, specifications, and other construction documents for the plumbing industry.

PLUMB-150 Topics in Plumbing

.3-4 units SC

- Variable hours

A supplemental course in plumbing to provide a study of current concepts and problems in plumbing. Specific topics will be announced in the schedule of classes.

PLUMB-298 Independent Study

.5-3 units SC

- Variable hours
- Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment.

PLUMB-299 Student Instructional Assistant

.5-3 units SC

- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled.

POLITICAL SCIENCE – POLSC

Obed Vazquez, Dean
Social Sciences Division
Faculty Office Building, Room 136

Possible career opportunities

Political science courses offer insight into events at the local, state, national, and international level. Students develop critical thinking and other useful skills for a broad range of careers including education, public service and law. Most career options require more than two years of college study.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in arts in political science for transfer

Students completing the program will be able to...

- recognize political values embedded in systems of political thought.
- describe the basic structures and procedures of American government.
- describe the relative impact of federal, state and local governments on the inhabitants of California.
- describe the content and origins of several world philosophies.
- demonstrate an understanding of fundamental political concepts.
- recognize and discuss various elements of power in political activity.

Political science courses offer insight into events at the local, state, national and international level. Students develop critical thinking and other useful skills for a broad range of careers including education, public service and law. Most career options require more than two years of college study.

The associate in arts in political science for transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education pattern (CSU GE); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Some courses in the major satisfy both major and CSU GE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

<i>major requirements:</i>		<i>units</i>
POLSC-121	Introduction to U.S. Government.....	3
<i>plus at least 9 units from:</i>		
BUS-240	Business Statistics.....	3
or		
MATH-142	Elementary Statistics with Probability.....	4
or		
MATH-144	Statway II.....	4
POLSC-120	Introduction to Politics.....	3
POLSC-220	Comparative Politics.....	3
POLSC-240	Political Theory.....	3
POLSC-250	International Relations.....	3
<i>plus at least 6 units from any course not used above or:</i>		
ANTHR-130	Cultural Anthropology.....	3
ECON-220	Principles of Macroeconomics.....	3
ECON-221	Principles of Microeconomics.....	3
HIST-140	History of Western Civilization to the Renaissance.....	3
HIST-141	History of Western Civilization since the Renaissance.....	3
POLSC-127	Introduction to Law and Democracy.....	3
POLSC-151	California Politics.....	3
total minimum units for the major		18-19

POLSC-120 Introduction to Politics

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents an introduction to key concepts of politics, the state, and relations between the state and individual as applied to the United States political system. Comparison of the United States system with other political systems will also be discussed. C-ID POLS 150, CSU, UC

POLSC-121 Introduction to United States Government

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

The course presents a survey of the American political framework and process. Students will examine the structure of the U.S. Constitution and functions of the legislative, executive and judicial branches at national, state and local levels, viewed in the context of political culture, political parties, pressure groups and citizenship. Emphasis will be placed on the impact of federal, state, and local governments in California. C-ID POLS 110, CSU, UC

POLSC-122 Latinx Politics and American Government

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course provides an introduction to United States and California governments from the history and experiences of the Latinx population. Students will analyze the U.S. and California Constitutions as well the legislative, executive, and judicial branches of governance. Emphasis will be on Latinx political participation, social justice movements and their influence upon U.S. institutions at the local, state, and federal levels. Public policy issues including political economy, naturalization, immigration, health care, naturalization, immigration, health care, education and criminal justice will also be examined. CSU, UC

POLSC-127 Introduction to Law and Democracy

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is an introduction to legal concepts in American democracy and contemporary issues: Theories of historical social injustice and movements; examination of law, social justice, democracy, government, civil rights, civil liberties, and citizenship. C-ID LPPS 110, CSU, UC

POLSC-151 California Politics

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course provides investigation and analysis of selected major issues of California politics and government including: the roles and responsibilities of governmental agencies, the importance of local political entities, and evaluation of policy choices. CSU, UC

POLSC-155 Topics in Political Science

.3-4 units SC

- Variable hours

A supplemental course in political science to provide a study of current concepts and problems in political science and related substantive areas. Specific topics will be announced in the schedule of classes. CSU

POLSC-220 Comparative Politics

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents a comparative analysis of the political systems of selected foreign states. The origins and nature of politics, philosophies, and cultures and their expression in political institutions and processes are investigated. C-ID POLS 130, CSU, UC

POLSC-240 Political Theory

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course will present a survey of selected political theories, concepts and issues from Plato to the present. Students will explore theoretical approaches used to explain, instruct, and justify the distribution of political power in societies.

C-ID POLS 120, CSU, UC

POLSC-250 International Relations

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is an introduction to various aspects of international relations and politics. Topics include sovereignty, the nation-state and international politics, the nature of the global community, international law, world economics, the United Nations and other international organizations and contemporary world problems. C-ID POLS 140, CSU, UC

POLSC-252 Model United Nations

3 units LR

- 36 hours lecture/54 hours laboratory per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course introduces students to the theory and practice of international diplomacy and intergovernmental organizations (IGOs.) Focus is placed on history, structures and functions of the United Nations (UN), international bargaining and diplomacy, conflict resolution, and parliamentary procedures. Model UN will examine United States foreign and domestic policies related to the UN. Students will organize meetings modeled after the UN General Assembly, the Security Council and other organs of the UN as well as its specialized agencies and major IGOs. CSU, UC

POLSC-298 Independent Study

.5-3 units SC

- Variable hours
- Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

POLSC-299 Student Instructional Assistant

.5-3 units SC

- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

PSYCHOLOGY – PSYCH

Obed Vazquez, Dean

Social Sciences Division

Faculty Office Building, Room 136

Possible career opportunities

Psychology students will find classes related to helping them understand, predict, and deal with their own behavior and that of others. Careers include psychotherapist, school psychologist, college professor, researcher, counselor and administrator. Most career options require more than two years of college study.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in arts in psychology for transfer
Students completing the program will be able to...

- A. identify the major theoretical orientations in psychology and demonstrate knowledge of basic psychological concepts regarding behavior and mental processes.
- B. demonstrate knowledge of research methods, ethical considerations in conducting research, and effective user of the American Psychological Association (APA) style in presenting information.
- C. utilize critical thinking skills to analyze, evaluate, and make decisions concerning complex contemporary issues in psychology.
- D. recognize the complexity of social, cultural, and international diversity.
- E. apply psychological principles to the development of interpersonal, occupational, and social skills, and life-long personal growth.
- F. demonstrate understanding of major theories, concepts, and research findings in selected content areas of psychology, such as lifespan development, personality and social psychology, neuroscience, and abnormal psychology.
- G. correctly apply statistical concepts to organize and understand data from psychological research.
- H. demonstrate an understanding of biological processes underlying behavior and experience.

The associate in arts in psychology for transfer major at Diablo Valley College (DVC) provides students with an introduction to psychology as the scientific study of thought, feeling, and behavior, and a helping profession dedicated to solving human problems. The associate degree curriculum meets lower division requirements for transfer to the CSU system baccalaureate degree programs in psychology and fulfills lower division general education requirements for transfer to the CSU system.

Psychology includes a variety of sub-fields, including clinical, counseling, developmental, forensic, social, cognitive, biological, and personality psychology. Most career options require more than two years of college study. The associate in arts in psychology for transfer degree provides preparation for transfer to psychology programs at baccalaureate-granting institutions. Transferring, completion of a bachelor's degree, and graduate studies in psychology can lead to careers as psychotherapists, college professors, scientific researchers, administrators, and business consultants.

The associate in arts in psychology for transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education pattern (CSU GE); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Some courses in the major satisfy both major and CSUGE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

<i>major requirements:</i>		<i>units</i>
PSYCH-101	Introduction to Psychology	3
PSYCH-215	Introduction to Research Methods in Psychology	3

<i>at least 3 units from:</i>	
BUS-240	Business Statistics..... 3
MATH-142	Elementary Statistics with Probability 4

<i>complete at least 3 units from:</i>		
BIOSC-102	Fundamentals of Biological Science with Laboratory	4
BIOSC-117	Human Biology with Laboratory	4
PSYCH-130	Introduction to Biological Psychology.....	3

<i>complete at least 3 units from:</i>		
PSYCH-145	Critical Thinking in Psychology.....	3
PSYCH-200	Life Span Development.....	3
PSYCH-225	Social Psychology.....	3

<i>complete at least 3 units from:</i>		
PSYCH-122	Psychology in Modern Life.....	3
PSYCH-140	Psychology of African-Americans in a Multicultural Society	3
PSYCH-141	Psychology of Latinos/Chicanos in the U.S.	3
PSYCH-160	Psychology of Women	3
PSYCH-190	Psychology of Adolescence.....	3
PSYCH-220	Psychology of Personality: Personal, Social, Cultural Differences.....	3
PSYCH-230	Abnormal Psychology	3
PSYCH-240	Transpersonal Psychology.....	3

total minimum units for the major 18

PSYCH-101 Introduction to Psychology

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is a study of the major theories, methods and concepts of modern psychology. The orientation of the course is the scientific study of behavior and mental processes, and covers such areas as: the history and systems of psychology, the biological foundations of behavior, perception, states of consciousness, learning, memory, motivation, emotion, human development, personality, stress and health, abnormal psychology, therapies, social psychology, research findings, and applied psychology. C-ID PSY 110, CSU, UC

PSYCH-122 Psychology in Modern Life

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course examines the psychological, physiological, and cultural factors involved in personality development, and interpersonal relationships. The relevance of psychology to social processes is also examined. This course is designed with an applied focus for students interested in how psychology is used in everyday life and is related to other social sciences. The course surveys different psychological perspectives and theoretical foundations and how these are applied across a person's life taking into account the influence of factors such as culture, gender, ethnicity, historical cohort, and socio-economic status. C-ID PSY 115, CSU, UC

PSYCH-130 Introduction to Biological Psychology

3 units SC

- 54 hours lecture per term
- Prerequisite: PSYCH-101 or equivalent
- Recommended: Eligibility for ENGL-122 or equivalent

This course explores the biological bases of behavior, emotions, and psychological processes. Brain-behavior relationships underlying psychological processes such as sensation, perception, learning, memory, emotions, and psychological disorders will be examined. Historical contributions, prominent theories and models, current research principles and ethical standards in research will be addressed. C-ID PSY 150, CSU, UC

PSYCH-140 Psychology of African Americans in a Multicultural Society

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is a study of the behavioral, physiological, and psychological experiences of African-Americans in the multicultural U.S. Topics chosen reflect the reciprocal impacts among majority European-American cultures and historical waves of immigration of various different minority groups, using African-Americans as a historical starting place, including assimilation, resistance, and acculturation. Particular attention will be paid to cultural, social, and historical contributions of African-Americans, and how they have been viewed in relation to Latino/as, Native Americans, and Asian-Pacific Americans over time. CSU, UC

PSYCH-141 Psychology of Latinos/Chicanos in the U.S.

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is a study of the behavioral, physiological, and psychological experiences of a variety of different groups within the Latino/Chicano cultural collective. Topics chosen reflect the reciprocal impacts among majority European American culture and historical waves of immigration of various different Latino groups, and other minority groups in the U.S., including assimilation, resistance, and acculturation. Particular attention will be paid to cultural, social, and historical contributions of groups within the Latino collective, and how Latino groups have been viewed in relation to African Americans, Native Americans, and Asian-Pacific Americans over time. CSU, UC

PSYCH-145 Critical Thinking in Psychology

3 units SC

- 54 hours lecture per term
- Prerequisite: ENGL-122 or equivalent

This course presents critical thinking and writing skills necessary to analyze, evaluate, and make decisions concerning complex contemporary issues in psychology. Topics include the principles of inductive and deductive reasoning, the philosophy of science, strengths and weaknesses of the scientific method, distinguishing knowledge from beliefs, and the examination of paradigms in psychology. The course integrates critical thinking and writing skills with effective written expression. C-ID ENGL 105, CSU, UC

PSYCH-155 Topics in Psychology

.3-4 units SC

- Variable hours

A supplemental course in psychology to provide a study of current concepts and problems in psychology and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

PSYCH-160 Psychology of Women

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is an examination of various factors in the development of gender identity, including personality, social processes, biology, and culture. Topics include interpersonal relations, communication styles, and psychological similarities and differences between males and females. CSU, UC

PSYCH-190 Psychology of Adolescence

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents a survey of adolescent development and the psychological challenges faced by adolescents. Topics include adolescent values and attitudes; adolescent self-concept, self-esteem and identity; adolescent sex-role socialization; parent and family influence on adolescent socialization and peer group influence on adolescent development. CSU, UC

PSYCH-195 Psychology of Adult Development and Aging

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course examines the physical, psychological, cognitive, social, and emotional aspects of the aging process including the interactions between the elderly and society. Topics include an analysis of stereotypes, social connections, environmental influences, sexuality, physical health, cognitive changes, mental health, death, bereavement, and self-reflection on life's meaning and purpose. CSU, UC

PSYCH-200 Life Span Development

3 units LR

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course examines the developmental changes and socio-cultural events that take place during an individual's life span from conception to death. Students are introduced to the psychological characteristics, personal or social developmental problems and opportunities for each of life's age periods. Students are also exposed to classic and contemporary theories and research (including the role of heredity and the environment) in the area of human development. Life stages will be viewed in terms of a variety of theoretical frameworks that address the following domains of human development: physical, cognitive, social and personality. C-ID PSY 180, CSU, UC

PSYCH-214 Introduction to Statistics for Psychology

4 units SC

- 72 hours lecture per term
- Prerequisite: Placement through the assessment process or MATH-119 or MATH-120 or MATH-120SP or equivalent

This course presents an introduction to the use of statistics and probability in the scientific study of people. Topics include descriptive statistics, linear regression, design of experiments, introductory probability, random variables, normal distribution and t-distribution, and statistical inference including confidence intervals and tests of significance. Emphasis will be given to the methods psychologists use to collect, describe, graph, and interpret patterns in data about people, and how psychologists report these results in research papers. Use of a computer for statistical analysis is required. CSU, UC (Credit limits may apply to UC - see counselor)

PSYCH-215 Introduction to Research Methods in Psychology

3 units SC

- 54 hours lecture per term
- Prerequisite: PSYCH-101 and BUS-240 or MATH-142 or equivalents
- Recommended: Eligibility for ENGL-122 or equivalent

This course is an introduction to the methods psychologists use to understand human behavior. The course examines the scientific method, operationalization of variables, inductive and deductive reasoning, experimental and non-experimental designs (including descriptive methods), experimental instrumentation, group and single-subject designs, and research ethics. Research in a variety of subfields within psychology will be utilized to demonstrate research design and the collection, analysis, interpretation, and reporting of research data. Students will perform a literature review, design an original research study, and prepare research reports using American Psychological Association (APA) style report writing. C-ID PSY 200, CSU, UC

PSYCH-220 Psychology of Personality: Personal, Social, Cultural Differences

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course examines the dynamics of personality development, adjustment, and growth. Particular emphasis is placed on contrasting the ideas and methodologies of various schools of psychology, including Western and non-Western views. CSU, UC

PSYCH-225 Social Psychology

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

Social psychology is the scientific study of the way people think, feel, and behave in social situations. This course is an introduction to the perspectives, research methods, and empirical findings in social psychology. Topics include how people influence each other, interpersonal attraction, person perception, social cognition, aggression, the power of social situations, developing critical and integrative ways of thinking about theory and research, and the application of social psychological theories to everyday life experiences. CSU, UC C-ID PSY 170

PSYCH-230 Abnormal Psychology

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course introduces the scientific study of the symptoms, causes, treatments, and prevention of psychological disorders. Multiple theoretical perspectives are used to examine the biological, psychological, and sociocultural factors creating abnormality. The course examines the Diagnostic and Statistical Manual of Mental Disorders (DSM) classification system, cultural and gender differences in abnormality, current research and ethical issues, and case illustrations of behavioral disorders. C-ID PSY 120, CSU, UC

PSYCH-240 Transpersonal Psychology

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course examines the psychological study of consciousness, mind-body relationship, and the role of spiritual inquiry in human transformation. Students will learn about ultimate human capacities such as peak and transcendent experiences, inspired creativity, altruistic ideals, and peak performance. Transpersonal psychology suggests such capacities and experiences may be latent and can be developed. In exploring this theme, various approaches from ancient spiritual to modern scientific are critically examined. CSU, UC

PSYCH-295 Occupational Work Experience Education in PSYCH

1-4 units SC

- May be repeated three times
- Variable hours
- Note: In order to enroll in PSYCH-295, students must be employed, register for the course, complete an online Employment Form, and participate in an orientation. Employment Form can be accessed at www.dvc.edu/wrkx. Incomplete grades are not awarded for this course.

PSYCH-295 is supervised employment that extends classroom learning to the job site and relates to the student's chosen field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Five hours work per week or seventy-five hours work per term is equal to one unit. Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

PSYCH-296 Internship in Occupational Work Experience Education in PSYCH

1-4 units SC

- May be repeated three times
- Variable hours
- Note: In order to enroll in the PSYCH-296 course, students must be interning or volunteering, register for the course, complete an online Employment Form, and participate in an orientation. The Employment Form can be accessed at www.dvc.edu/wrkx. Incomplete grades are not awarded for this course.

PSYCH-296 is a supervised internship in a skilled or professional level assignment in the student's major field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Internships may be paid, non-paid, or some partial compensation provided. Five hours work per week or seventy-five hours work per term is equal to one unit (paid) or one unit for four hours work per week or sixty hours per term (unpaid work). Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

PSYCH-298 Independent Study

.5-3 units SC

- Variable hours
- Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

PSYCH-299 Student Instructional Assistant

.5-3 units SC

- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

RESPIRATORY THERAPY – RT

Associate in science degree

Respiratory therapy

Associate in science degree - respiratory therapy

Students completing the program will be able to...

- demonstrate the cognitive, psychomotor, and affective skills necessary to assist the physician in the diagnosis and disorders.
- demonstrate appropriate critical thinking skills, time management skills, interpersonal communication skills, and technical skills necessary to provide competent respiratory care in multidisciplinary care settings.
- qualify for licensure in the State of California.
- qualify nationally for Registered Respiratory Therapist status.

The respiratory therapy (RT) program is offered in collaboration with Ohlone College in Newark. Students complete general education courses at DVC, laboratory and clinical courses at Ohlone College, and have supervised clinical practice at local hospitals.

Respiratory therapy

This program prepares students to be respiratory therapists in one of the fastest growing allied health professions in the nation. Therapists are involved in the diagnosis, treatment, management and care of patients with deficiencies and abnormalities associated with the cardio respiratory system, in both hospital and home environments. Completion of this CoARC (Committee on Accreditation for Respiratory Care) program makes graduates eligible for the California state license examination for respiratory care practitioner (RCP) and the registered respiratory therapist (RRT) credentialing examination of the National Board for Respiratory Care (NBRC).

By completing the general education coursework at DVC and the RT coursework at Ohlone, students will receive an associate in science degree from Ohlone College. Students must maintain a minimum of a "C" grade or higher in all program courses. For applications and information, contact the Ohlone College RT program director at www.ohlone.edu/instr/rt. All applicants are required to attend a Pre-Application Orientation. Dates are posted annually on the Ohlone website.

<i>required program prerequisites or equivalents:**</i>		<i>units</i>
CHEM-108	Introductory Chemistry	4
or		
CHEM-120	General College Chemistry I.....	5
ENGL-122	First-Year College Composition and Reading	3
MATH-119	Beginning and Intermediate Algebra	4
BIOSC-119	Fundamentals of Microbiology	4
BIOSC-139	Human Anatomy.....	5
BIOSC-140	Human Physiology	5
PHYS-110	Elementary Physics.....	3

total minimum units of program prerequisites 28-29

supporting course:

PSYCH-200	Life Span Development.....	3
total units of supporting course		3

****Prerequisites and support course may be "in progress" at the time of application. These courses must be completed no later than the end of the spring term during the year of application.**

recommended course before entering the program:

COMM-120	Public Speaking	3
COMM-128	Interpersonal Communication	3
COMM-130	Small Group Communication.....	3
total units of recommended course		3

major requirements:

AH 151*	Applied Clinical Pharmacology.....	2
RT-101*	Principles of Respiratory Therapy I	3
RT 101L*	Beginning Clinical Practice	1
RT 102*	Beginning Laboratory	2
RT 103*	Basic Patient Care.....	0.5
RT 104A*	Principles of Respiratory Therapy II	3
RT 104B*	Principles of Respiratory Therapy III.....	3
RT 105A*	Intermediate Laboratory I	1
RT 105B*	Intermediate Laboratory II	0.5
RT 107*	Intermediate Clinical Practice.....	4
RT 108*	Basic Principles of Respiratory Pathophysiology	1
RT 130A*	Advanced Respiratory Therapy I	2.5
RT 130B*	Advanced Respiratory Therapy II	1.5
RT 130L*	Advanced Clinical Practice	2

RT 131A*	Principles of Mechanical Ventilation I.....	2.5
RT 131B*	Principles of Mechanical Ventilation II.....	2.5
RT 132*	Advanced Laboratory	1
RT 133*	Mechanical Ventilation Laboratory.....	2
RT 134*	Neonatal and Pediatric Respiratory Care	1
RT 134L*	Clinical Practicum in Neonatal and Pediatric Respiratory Care	1.5
RT 135*	Computer Simulations for Respiratory Care	0.5
RT 136*	Critical Care Clinical Practice	3.5
RT 137*	Home Respiratory Care and Pulmonary Rehabilitation	0.5
RT 138*	Special Rotations in Respiratory Care	0.5
RT 139*	Pulmonary Function Testing	1
RT 139L*	Clinical Practice in Pulmonary Function Testing	0.5
total minimum required units		44

**These are Ohlone College courses.*

In addition to the courses above, students must complete general education:

Ohlone	DVC
Area III, Fine Arts/Humanities 3 units required	Area III, Arts and Humanities
Area V, Physical Education/Wellness 1 unit required	Minimum of 1 unit of activity courses including:
	KNACT and KNDAN, 1 unit or HSCI-124, 126, 127, 130, 135, 140, 164, 170
Area VI, Cultural diversity	One course from: ADS-155; ADJUS-130; ANTHR-120, 135; BUSMG-131; COMM- 125; CULN-228; DRAMA-142; ECE- 144; ENGL-162, 163, 164, 166, 167, 168, 170, 173, 177, 190, 225, 262; FTVE-210, 260; GEOG- 130, 135; HIST-124, 125, 126, 127, 128, 129, 135, 136, 150, 151, 161, 170, 171, 181; HUMAN-115, 116; MUSIC-112, 114, 115, 116; NUTRI-130; PHILO-220; POLSC- 220, 250; PSYCH-140, 141, 160, 220; SOCIO- 124, 125, 131, 135; SOCSC-120, 220
Area VII, Information competency	LS-121 required

RUSSIAN – RUSS

Toni Fannin, Dean
 Applied and Fine Arts Division
 Business and Foreign Language Building, Room 204

Possible career opportunities

The study of Russian can open up opportunities in communications, foreign trade and banking, transportation, government, the Foreign Service, tourism, library services, teaching, professional translating, journalism, and all levels of education, including university teaching. Most foreign language careers require more than two years of study.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in arts degree Russian

Students completing the program will be able to...

- A. communicate verbally in the target language with accurate pronunciation in meaningful situation present in both informal and formal contexts.
- B. effectively apply rules of grammar and syntax in tandem with appropriate vocabulary in written and oral communication.
- C. demonstrate auditory comprehension of instruction, authentic content, and purposeful conversations in the target language.
- D. discuss, describe, and infer information from authentic texts in the target language.
- E. demonstrate cultural appreciation by making (comparative) connections, on both an individual and societal level, between the target cultures and students' own cultures.
- F. create (write or present) narratives and/or arguments that demonstrate cohesive critical thinking in the target language.

The associate in arts degree in Russian at DVC will provide students with skills in understanding, speaking, reading and writing Russian. It also gives students a greater understanding of Russian culture and civilization and will prepare them for a broad range of international and domestic career opportunities and professions. The degree will also provide students the opportunity to transfer to UC, CSU and other four year colleges and universities to earn a bachelor's degree.

The DVC Russian major is intended for transfer. Students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to baccalaureate-granting institutions of their choice are met. Students who intend to transfer are advised to select General Education Option 2 (IGETC) or Option 3 (CSUGE). Option 1 (DVC General Education) is appropriate for those students who do not intend to transfer. Students may not take a credit/no credit option for major courses and each of the major requirements must be completed with a "C" grade or higher. Certain courses may satisfy both a major and a general education requirement; however, the units are counted only once.

To earn an associate in arts degree in Russian, students must complete 20 units from the list of major requirements, which will provide students with the essential grammar of the language, culture and basic literature of the Russian speaking countries.

<i>required courses:</i>	<i>units</i>
RUSS-120 First Term Russian	5
RUSS-121 Second Term Russian	5
RUSS-220 Third Term Russian	5
RUSS-221 Fourth Term Russian	5

total minimum units for the major 20

Certificate of achievement Russian

Students completing the program will be able to...

- A. communicate verbally in the target language with accurate pronunciation in meaningful situation present in both informal and formal contexts.
- B. effectively apply rules of grammar and syntax in tandem with appropriate vocabulary in written and oral communication.
- C. demonstrate auditory comprehension of instruction, authentic content, and purposeful conversations in the target language.
- D. discuss, describe, and infer information from authentic texts in the target language.
- E. demonstrate cultural appreciation by making (comparative) connections, on both an individual and societal level, between the target cultures and students' own cultures.
- F. create (write or present) narratives and/or arguments that demonstrate cohesive critical thinking in the target language.

This certificate of achievement was created to give students the opportunity to show potential employers in this country and in other countries that the student has completed a certain number of courses in Russian and prepares students with an intermediate to advanced knowledge of Russian and familiarizes them with the culture of Russia and other Russian-speaking countries.

This certificate of achievement provides students, prospective employers and others with documented evidence of persistence and academic accomplishment in the language. The certificate requires completion of a minimum of 15 units from the following list of courses. Students may not take a credit/no credit option for required courses and each course must be completed with a "C" grade or higher.

<i>complete at least 15 units from:</i>	<i>units</i>
RUSS-120 First Term Russian	5
RUSS-121 Second Term Russian	5
RUSS-220 Third Term Russian	5
RUSS-221 Fourth Term Russian	5
total minimum required units	15

RUSS-120 First Term Russian

- 5 units SC
- 90 hours lecture per term
 - Note: This course is equivalent to two years of high school study.

This is a basic course in understanding, speaking, reading and writing Russian. It offers a balanced approach to the language and culture. Basic communicative functions and structures are introduced as well as a basic exploration of the culture of the Russian-speaking countries. CSU, UC

RUSS-121 Second Term Russian

- 5 units SC
- 90 hours lecture per term
 - Prerequisite: RUSS-120 or two years of high school study or equivalent
 - Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.

This is the second course in a sequence of Russian language courses. It addresses the understanding, speaking, reading and writing of the Russian language. The course continues to expand vocabulary, communicative functions, and structures. The course will continue the examination of the cultures of the Russian-speaking countries. CSU, UC

RUSS-150 Topics in Russian

- .3-4 units SC
- Variable hours

A supplemental course in Russian to provide a study of current concepts and problems in Russian and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

RUSS-220 Third Term Russian

- 5 units SC
- 90 hours lecture per term
 - Prerequisite: RUSS-121 or three years of high school study or equivalent
 - Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.

This is the third course in a sequence of Russian language courses. The course continues development of fluency in understanding, speaking, reading and writing Russian. All verbal tenses are reviewed, expanded and refined, and advanced grammar concepts, new vocabulary, and idiomatic expressions are introduced. Selected readings about the culture and literature of Russia and other Russian-speaking countries are explored. This course is taught entirely in Russian. CSU, UC

RUSS-221 Fourth Term Russian

- 5 units SC
- 90 hours lecture per term
 - Prerequisite: RUSS-220 or four years of high school study or equivalent
 - Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.

This is a fourth semester course which refines understanding, speaking, reading, and writing Russian and a continuation of the study of Russian literature and history. The course expands on the study and interpretation of Russian and Soviet culture, with emphasis on current events. Verbs which express requests or questions, declensions of last names and additional uses of the instrumental case will be covered. CSU, UC

RUSS-299 Student Instructional Assistant

- .5-3 units SC
- Variable hours
 - Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

SIGN LANGUAGE – SIGN

Obed Vazquez, Dean
Social Sciences Division
Faculty Office Building, 136

Possible career opportunities

Sign language will help to prepare the student to communicate and work with deaf and hard of hearing people. There is a need for skilled, qualified sign language interpreters in educational and social service agencies. Teachers, human services providers, or independent living attendants also sometimes use sign language in their work. Some career options require more than two years of college study.

SIGN-280 American Sign Language (ASL) I

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

The course provides an introduction to American Sign Language (ASL) including expressive and receptive sign, the manual alphabet, facial expression, and body gestures. Conversational skills in everyday situations, utilizing ASL vocabulary and grammatical expression, are emphasized. An introduction to Deaf culture, community, and history is woven throughout the course. CSU, UC

SIGN-281 American Sign Language (ASL) II

3 units SC

- 54 hours lecture per term
- Prerequisite: SIGN-280 or equivalent

This course builds on American Sign Language (ASL) fundamentals introduced in SIGN-280. Students will develop beginning-intermediate ASL skills including expressive and receptive sign, the manual alphabet, expanded vocabulary, grammar, facial grammar, and body gestures. An emphasis will be placed on an appreciation of Deaf culture and community through conversational skills in functional situations. CSU, UC

SIGN-282 American Sign Language (ASL) III

3 units SC

- 54 hours lecture per term
- Prerequisite: SIGN-281 or equivalent

This course in American Sign Language (ASL) expands receptive and expressive vocabulary and grammatical skills at the intermediate level building on skills acquired in ASL I and II. Students will further develop conversational skills in functional situations. Techniques of facial grammar, role shift, and classifier use as it relates to American Sign Language and Deaf culture will be studied. CSU, UC

SIGN-283 American Sign Language (ASL) IV

3 units SC

- 54 hours lecture per term
- Prerequisite: SIGN-282 or equivalent

This course is an advanced study of American Sign Language (ASL), expanding receptive and expressive vocabulary and grammatical skills presented in SIGN-282. Communication skills essential for advanced conversations in a variety of functional settings are developed. Emphasis is placed on understanding Deaf culture stories and storytelling techniques as well as history of Deaf people who influenced the rich Deaf cultural heritage. CSU, UC

SIGN-299 Student Instructional Assistant

.5-3 units SC

- Variable Hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

SOCIAL SCIENCE – SOCSC

Obed Vazquez, Dean
Social Sciences Division
Faculty Office Building, Room 136

Possible career opportunities

Social science fields are many and varied, as are the associated career opportunities. Careers with all levels of government, research and teaching are all possibilities. Most career options require more than two years of college study.

Associate in arts in social justice for transfer

Students completing the program will be able to...

- demonstrate a basic understanding of social injustices and inequities, and proposed approaches to their remediation and/or resolution, drawn from a variety of historic, cultural and regional settings.
- analyze the processes through which communities attempt to overcome and heal from problems associated with inequality, stigma, prejudice and discrimination.
- demonstrate analytical writing ability that effectively integrates theoretical frameworks, research findings and experiential knowledge about social justice.
- be empowered through their participation in community engagement projects to be civically engaged participants in college and community life.

The associate in arts in social justice studies for transfer degree provides students with a community-engagement model of learning about inequalities, stigma, prejudice and discrimination and efforts to remediate, heal and overcome them. It offers a wide range of courses in sociology, interdisciplinary social sciences, history, psychology, drama, music, fine arts, and literature.

Completion of the degree is valuable in its own right, as it empowers students to be effective agents for social change. This program is also an excellent starting point for students contemplating a career in law, law enforcement, social work, clinical psychology, any social science, health and medical fields, education, public policy, politics, business, music, drama, or fine arts.

The associate in arts in social justice studies for transfer degree is primarily intended for students who plan to complete a bachelor's degree at a California State University (CSU) in areas of study such as african american studies; africana studies; american indian studies; american studies; arabic language, literature and culture; asian american studies; chicano/chicana studies; ethnic studies; gender studies; labor and employment studies; labor studies; latin american studies; liberal studies w/option in interdisciplinary studies in culture and society; liberal studies - border studies option; mexican-american studies; modern jewish studies; negotiation, conflict resolution and peace building; sociology - concentration in critical race studies; sociology – concentration race, class, and gender; sociology with inequalities and diversity option; social science with emphasis in islamic and arabic studies; women, gender, and sexuality studies; women's studies. Students completing this degree are guaranteed admission to the CSU system, but not necessarily to a particular major or campus.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education-Breadth pattern (CSU GE-Breadth); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system, or those students who do not intend to transfer.

Students must complete each course used to meet a major requirement with a "C" grade or higher. Some courses in the major satisfy both major and CSUGE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

<i>required courses:</i>		<i>units</i>
SOCIO-135	Introduction to Race and Ethnicity	3
SOCIO-124	Gender, Culture and Society	3

<i>plus at least 3 units from:</i>		
ENGL-163	Asian American Literature.....	3
ENGL-167	Latin American Literature.....	3
HIST-125	History of the United States: A Mexican American Perspective.....	3
HIST-127	African American Perspective History of the US to 1865.....	3
HIST-128	African American Perspective History of the US after 1865	3
HIST-129	History of Asian and Pacific Islanders in the United States.....	3
PSYCH-140	Psychology of African Americans in a Multicultural Society	3
SOCSC-120	Women and Social Change in the United States: 1890-Present	3
SOCSC-220	Women in United States Society	3

plus at least 3 courses from two areas:

history		
HIST-170	History of Women in the United States before 1877.....	3
HIST-171	History of Women in the United States after 1865	3

arts and humanities		
ENGL-164	Native American Literature	3
ENGL-166	African American Literature	3
ENGL-168	The Literatures of America.....	3
ENGL-173	Queer Literature Across Cultures	3
ENGL-190	Multicultural Literature by American Women...3	
FTVE-210	American Ethnic Cultures in Film.....	3
FTVE-260	Ethnic Images in United States Television	3
HUMAN-115	Humanities: The American Multicultural Experience	3
MUSIC-112	American's Music: A Multicultural Perspective	3
MUSIC-117	History of Rock and R&B.....	3
MUSIC-118	The History of Jazz	3

social science		
PSYCH-141	Psychology of Latinos/Chicanos in the US	3
SOCIO-121	Social Problems	3
SOCIO-125	Introduction to Marriage and Family	3

quantitative reasoning and research methods		
MATH-142	Elementary Statistics and Probability	4
MATH-144	Statway II.....	4
PSYCH-215	Introduction to Research Methods in Psychology	3
SOCIO-123	Introduction to Social Research	3

major preparation		
HSCI-135	Health and Social Justice	3
HSCI-170	Women's Health	3

total minimum units for the major 18

SOCSC-101 Introduction to Social Justice

3 units SC

- 54 hours lecture
- Recommended: Eligibility for ENGL-122 or Equivalent

This course examines social justice movements and policies as they advocate for people marginalized on the basis of race, nationality, gender, sexuality, and/or religion in the United States. A holistic approach is utilized to explore theories of justice, the history of social justice movements, and contemporary issues through the lenses of sociology, history, media studies, art and music. An introduction to the study and practice of community engagement is also presented. C-ID SJS 110, CSU, UC

SOCSC-110 The American Social Experience

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is an interdisciplinary examination of the various interpretations developed within the social sciences of the roles of individuals and their experiences in American society. The course considers the roles of social institutions, federal, state, and local governments, and surveys the ideas and values that played a part in shaping America's cultural image. The course surveys the significant contributions of Asian Americans, Latinos, African Americans, Native Americans, and women in shaping the evolution of the concept of American individualism. It also examines critical events in the shaping of social, political, and economic identity among national and gender groups in American society and culture. CSU, UC

SOCSC-111 Money, Power and Politics in the United States

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is a multidisciplinary, integrative study of the concepts of democracy and the historical, political and economic processes through which democracy has arisen in the United States. The United State Constitution and state and local government in California will be emphasized. Particular attention is given to the contributions to American democracy by diverse social groups and the international context of American political and economic life. CSU, UC

SOCSC-120 Women and Social Change in the United States: 1890-Present

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course presents an overview of the history of U.S. women from the Progressive Era (1890) to the present, emphasizing the commonalities of women's experiences. It examines differences among women based on their ethnic identification, social class and region, including the interaction between and contributions of Native American, African American, Asian American and Latina women. Topics of emphasis will include political, economic and cultural change in the U.S., change fostered by women, and the transformed roles of women in the family within the continuity of the United States experience. Students will analyze the political philosophies of the framers of the U.S. Constitution and the rights and obligations of citizens under the U.S. Constitution with an emphasis on gender issues. CSU, UC

SOCSC-123 American Popular Culture

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is an interdisciplinary examination of popular culture's changing nature in American society. Looking through the lens of popular culture, this course will examine social and political institutions, such as federal and California state government, and various values that shape American popular culture. The course considers the significant contributions of Asian American, Latino, African American, Native American, and Jewish communities in shaping the evolution of American popular culture, and considers the importance of women as both producers and consumers of popular culture. CSU, UC

SOCSC-155 Topics in Social Science

.3-4 units SC

- Variable hours

A supplemental course in the social sciences to provide a study of current concepts and problems in social sciences and related substantive areas. Specific topics will be announced in the schedule of classes. CSU

SOCSC-220 Women in United States Society

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is a multicultural and interdisciplinary examination of women's changing roles in U.S. society. The social institutions and values that shape those roles, including federal, state, and local governments, as well as the U.S. and California Constitutions will be explored. Significant events and developments that shape the social, political, and economic status of women, as well as the importance of race/ethnicity, class, region, and sexual orientation in differentiating the experiences and opportunities for women will also be presented. CSU, UC

SOCSC-295 Occupational Work Experience in SOCSC

1-4 units SC

- May be repeated three times
- Variable Hours
- Note: In order to enroll in SOCSC-295, students must be employed, register for the course, complete an online Employment Form, and participate in an orientation. Employment Form can be accessed at www.dvc.edu/wrwx. Incomplete grades are not awarded for this course.

SOCSC-295 is supervised employment that extends classroom learning to the job site and relates to the student's chosen field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Five hours work per week or seventy-five hours work per term is equal to one unit. Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

SOCSC-296 Internship in Occupational Work Experience Education in SOCSC

1-4 units SC

- May be repeated three times
- Variable hours
- Note: In order to enroll in the SOCSC-296 course, students must be interning or volunteering, register for the course, complete an online Employment Form, and participate in an orientation. The Employment Form can be accessed at www.dvc.edu/wrwx. Incomplete grades are not awarded for this course.

SOCSC-296 is a supervised internship in a skilled or professional level assignment in the student's major field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Internships may be paid, non-paid, or some partial compensation provided. Five hours work per week or seventy-five hours work per term is equal to one unit (paid) or one unit for four hours work per week or sixty hours per term (unpaid work). Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

SOCSC-298 Independent Study

.5-3 units SC

- Variable hours
- Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

SOCSC-299 Student Instructional Assistant

.5-3 units SC

- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

SOCIOLOGY – SOCIO

Obed Vazquez, Dean
Social Sciences Division
Faculty Office Building, Room 136

Possible career opportunities

Sociology provides students with career opportunities including criminologist, employment counselor, interviewer, researcher, social worker, and urban planner. Most career options require more than two years of college study.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in arts in sociology for transfer

Students completing the program will be able to...

- define and apply sociological concepts.
- identify, explain and provide possible solutions to social problems.
- identify and apply the major theoretical paradigms, functionalist, conflict and interactionist perspectives to analyze social and cultural issues.
- demonstrate knowledge of research methods and ethical considerations in conducting research.
- utilize critical thinking skills to analyze and evaluate complex social issues.
- utilize data to study social phenomena.
- make connections between individuals' lives, their biographies and their social context.

The sociology major is a valuable liberal arts major for students planning careers in social research, criminology, demography, or social psychology, but also for those pursuing a course of study in public administration, gerontology, education, social work and market research. Sociology provides a useful background for those planning to enter law, business, marketing, medicine, community planning and services, architecture, and politics. In many professional programs in human services, courses in sociology are part of the required training. Sociologists with graduate degrees may teach at the high school, college or graduate levels. They may also become research sociologists in both the public and private sectors and work in areas of public policy, the law and international studies. Applied sociologists may work with social service agencies and community programs on behalf of others, including underrepresented or neglected populations.

Sociology at Diablo Valley College offers a broad range of courses including the urban environment, marriage and families, minority and race relations, social problems, social research and gender studies.

The associate in arts in sociology for transfer is intended for students who plan to complete a bachelor's degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education pattern (CSU GE); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of "C" or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor's degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Some courses in the major satisfy both major and CSUGE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

major requirements: *units*
SOCIO-120 Introduction to Sociology..... 3

plus at least 6 units from:

BUS-240 Business Statistics with Probability 3
or
MATH-142 Elementary Statistics with Probability..... 4
SOCIO-121 Introduction to Social Problems 3
SOCIO-123 Introduction to Social Research 3

plus at least 6 units from any course not used above, or:

PSYCH-225 Social Psychology 3
SOCIO-122 Critical Thinking About Social and
Cultural Issues 3
SOCIO-124 Gender, Culture and Society..... 3
SOCIO-125 Introduction to Marriage and Family..... 3
SOCIO-135 Introduction to Race and Ethnicity 3

plus at least 3 units from any course not used above, or:

SOCIO-131 The Urban Community 3
SOCSC-120 Women and Social Change in the United
States:1890-Present 3

total minimum units for the major 18

SOCIO-120 Introduction to Sociology

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course provides an introduction to the theory and scientific methodology of sociology; a survey of the interactions, interrelationships, and processes of society as an organized structure. Sociology's substantive areas including methodology, socialization, culture, social stratification, race, and ethnic minorities, gender and sexual orientation will be discussed. Institutional analysis beginning with the family, religion, and education is introduced. C-ID SOCI 110, CSU, UC

SOCIO-121 Introduction to Social Problems

3 units SC

- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is a survey of perspectives on major social problems, primarily in the urban, industrial settings. Includes sources, consequences of and means of coping with a variety of social problems. The scientific methodology required for accurate analysis is emphasized. Topics will be selected from social problems such as aging, health care, mental illness, environmental issues, labor force conditions, gender and sexuality, poverty, crime, juvenile delinquency, suicide, addiction, abuse, migration and relations with minority groups, or membership in deviant subcultures. C-ID SOCI 115, CSU, UC

SOCIO-122 Critical Thinking About Social and Cultural Issues

- 3 units SC
- 54 hours lecture per term
- Prerequisite: ENGL-122 or equivalent

Critical reasoning in sociology is a process of questioning, analyzing and evaluating oral and written ideas, concepts, and interpretations of the political, economic and social issues and patterns found in human societies. This course will include an introduction to the principles of logic, the structure of language, research methodologies, and prevailing theoretical models in sociology. Students will complete a series of increasingly complex analytical essays that identify sociological perspectives, gather and analyze sociological information, recognize sociological relationships and patterns, and discuss the relevancy of sociological insights and theories as a background for understanding current events and issues. CSU, UC

SOCIO-123 Introduction to Social Research

- 3 units SC
- 54 hours lecture per term
- Prerequisite: SOCIO-120 or equivalent
- Recommended: Eligibility for ENGL-122 or equivalent

This course is a study of the various social research methods and a review of problems in assessing data relating to social life. Topics to be covered include: posing a sociological problem, data-gathering techniques, sampling, measurement, and establishing relationships among data. This class allows students to become involved in the process of conducting survey research and to participate in the use of other social research techniques. C-ID SOCI 120, CSU, UC

SOCIO-124 Gender, Culture, and Society

- 3 units SC
- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course provides a multidimensional examination of gender in the United States and other societies, exploring the mechanisms by which gender roles develop and the consequences for society. It also examines the social and cultural processes and institutional arrangements that give meaning to being a woman and a man in a gendered society. This course presents a multidimensional examination of gender in the United States and other societies, including the mechanisms by which gender roles develop and the consequences for society. The social and cultural processes and institutional arrangements that give meaning to being a woman and a man in a gendered society will also be covered. C-ID SOCI 140, CSU, UC

SOCIO-125 Introduction to Marriage and Family

- 3 units SC
- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

An examination of basic issues concerning marriage, family and kinship in African American, Euro American, Hispanic, Asian and Native American families. Emphasis on cross-cultural and cross-societal comparisons, kinship groups, the nature of human marriage, relationship of the family to other social institutions, child rearing, plural marriages, family politics, and speculations concerning the future of the family. C-ID SOCI 130, CSU, UC

SOCIO-131 The Urban Community

- 3 units SC
- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course examines current and historical social change in cities and suburbs through the experience of African Americans, Latinos, Asian Americans, Native Americans and European Americans. Challenges faced by multicultural communities, neighborhoods and suburbs, and programs and strategies that are designed to meet these challenges will be covered. CSU, UC

SOCIO-135 Introduction to Race and Ethnicity

- 3 units SC
- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course is a sociological analysis of ethnic cultures in the United States. Topics include political, economic, religious, judicial, and familial organization of ethnic communities, the effects of the dominant society on these institutions and recent socio-political movements. C-ID SOCI 150, CSU, UC

SOCIO-155 Topics in Sociology

- .3-4 units SC
- Variable hours

A supplemental course in sociology to provide a study of current concepts and problems in sociology and related substantive areas. Specific topics will be announced in the schedule of classes. CSU

SOCIO-298 Independent Study

- .5-3 units SC
- Variable hours
- Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

SOCIO-299 Student Instructional Assistant

.5-3 units SC

- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

SPANISH – SPAN

Toni Fannin, Dean

Applied and Fine Arts Division

Business and Foreign Language Building, Room 204

Possible career opportunities

The study of Spanish can open up opportunities in communications, foreign trade and banking, transportation, government, the Foreign Service, tourism, library services, teaching, professional translating, journalism, and all levels of education, including university teaching. Most foreign language careers require more than two years of study.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

**Associate in arts degree
Spanish**

Students completing the program will be able to...

- communicate verbally in the target language with accurate pronunciation in meaningful situations present in both informal and formal contexts.
- effectively apply rules of grammar and syntax in tandem with appropriate vocabulary in written and oral communication.
- demonstrate auditory comprehension of instruction, authentic content, and purposeful conversations in the target language.
- discuss, describe, and infer information from authentic texts in the target language.
- demonstrate cultural appreciation by making (comparative) connections, on both an individual and societal level, between the target cultures and students' own cultures.
- create (write or present) narratives and/or arguments that demonstrate cohesive critical thinking in the target language.

The associate in arts degree in Spanish at DVC will provide students with skills in understanding, speaking, reading and writing Spanish. It also gives students a greater understanding of Spanish culture and civilization and will prepare them for a broad range of international and domestic career opportunities and professions. The degree will also provide students the opportunity to transfer to UC, CSU and other four year colleges and universities to earn a bachelor's degree.

The DVC Spanish major is intended for transfer. Students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to baccalaureate-granting institutions of their choice are met. Students who intend to transfer are advised to select General Education Option 2 (IGETC) or Option 3 (CSU GE). Option 1 (DVC General Education) is appropriate for those students who do not intend to transfer. Students may not take a pass/no pass option for major courses and each of the major requirements must be completed with a "C" grade or higher. Certain courses may satisfy both major and general education requirements; however, the units are counted only once.

To earn an associate in arts degree in Spanish, students must complete 20 units from the list of major requirements, which will provide students with the essential grammar of the language, culture and basic literature of the Spanish speaking world. Students with no previous knowledge of Spanish when entering DVC will take the first four courses in the list for a total of 20 units. If students enter the program with previous knowledge of Spanish, they may start at the second term level and take fifth and sixth terms to achieve a total of 21 units.

complete at least 20 units from:		units
SPAN-120	First Term Spanish	5
SPAN-121	Second Term Spanish	5
SPAN-220	Third Term Spanish	5
SPAN-221	Fourth Term Spanish	5
SPAN-230	Fifth Term Spanish	3
SPAN-231	Sixth Term Spanish	3
total minimum units for the major		20

Associate in arts in Spanish for transfer

Students completing the program will be able to...

- communicate verbally in the target language with accurate pronunciation in meaningful situations present in both informal and formal contexts.
- effectively apply rules of grammar and syntax in tandem with appropriate vocabulary in written and oral communication.
- demonstrate auditory comprehension of instruction, authentic content, and purposeful conversations in the target language.
- discuss, describe and infer information from authentic texts in the target language.
- demonstrate cultural appreciation by making (comparative) connections, on both an individual and societal level, between target cultures and students' own cultures.
- create (write or present) narratives and/or arguments that demonstrate cohesive critical thinking in the target language.

The study of Spanish can open up opportunities in communications, foreign trade and banking, transportation, government, the Foreign Service, tourism, library services, teaching, professional translating, journalism, and all levels of education, including university teaching. Most foreign language careers require more than two years of study.

The associate in arts in Spanish for transfer is intended for students who plan to complete a bachelor’s degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major.

In order to earn the degree, students must:

- Complete 60 CSU-transferable units.
- Complete the California State University-General Education-Breadth pattern (CSU GE-Breadth); or the Intersegmental General Education Transfer Curriculum (IGETC) pattern, including the Area 1C requirement for Oral Communication.
- Complete a minimum of 18 units in the major.
- Attain a minimum grade point average (GPA) of 2.0.
- Earn a grade of “C” or higher in all courses required for the major.

Students transferring to a CSU campus that accepts the degree will be required to complete no more than 60 units after transfer to earn a bachelor’s degree. This degree may not be the best option for students intending to transfer to a particular CSU campus or to a university or college that is not part of the CSU system, or those students who do not intend to transfer.

Students must complete each course used to meet a major requirement with a “C” grade or higher. Some courses in the major satisfy both major and CSUGE/IGETC general education requirements; however, the units are only counted once toward the 60 unit requirement for an associate degree. Some variations in requirements may exist at certain four-year institutions; therefore, students who intend to transfer are advised to refer to the catalog of the prospective transfer institution and consult a counselor.

<i>major requirements:</i>	<i>units</i>
SPAN-120 First Term Spanish	5
SPAN-121 Second Term Spanish.....	5
SPAN-220 Third Term Spanish.....	5
SPAN-221 Fourth Term Spanish.....	5
SPAN-230 Fifth Term Spanish	3
total minimum units for the major	23

Certificate of achievement Spanish

Students completing the program will be able to...

- A. communicate verbally in the target language with accurate pronunciation in meaningful situations present in both informal and academic contexts.
- B. effectively apply rules of grammar and syntax in tandem with appropriate vocabulary in written and oral communication.
- C. demonstrate auditory comprehension of instruction, authentic content, and purposeful conversations in the target language.
- D. discuss, describe and infer information from authentic texts in the target language.
- E. create (write or present) narratives and/or arguments that demonstrate cohesive critical thinking in the target language.
- E. demonstrate cultural appreciation by making (comparative) connections, on both an individual and societal level, between the target cultures and students’ own cultures.
- F. create (write or present) narratives and/or arguments that demonstrate cohesive critical thinking in the target language.

This certificate of achievement was created to give students the opportunity to show potential employers in this country and in other countries that the student has completed a certain number of courses in Spanish and prepares students with an intermediate to advanced knowledge of Spanish and familiarizes them with the culture of Spain and Latin America.

This certificate of achievement provides students, prospective employers and others with documented evidence of persistence and academic accomplishment in the language. The certificate requires completion of at least 13 units from one of the following lists of courses. Students may not take a credit/no credit option for required courses and each course must be completed with a “C” grade or higher.

<i>List A</i>	<i>units</i>
SPAN-120 First Term Spanish	5
SPAN-121 Second Term Spanish.....	5
SPAN-220 Third Term Spanish	5
SPAN-221 Fourth Term Spanish.....	5
SPAN-230 Fifth Term Spanish	3
SPAN-231 Sixth Term Spanish	3

<i>List B</i>	<i>units</i>
SPAN-121 Second Term Spanish.....	5
SPAN-155 First Term Beginning Conversational Spanish.....	3
SPAN-156 Second Term Beginning Conversational Spanish.....	3
SPAN-157 Third Term Beginning Conversational Spanish.....	3
SPAN-220 Third Term Spanish	5
SPAN-221 Fourth Term Spanish.....	5
total minimum required units	13

SPAN-120 First Term Spanish

5 units SC

- 90 hours lecture per term
- *Note: This course is equivalent to two years of high school study.*

This course provides an introduction to the Spanish language and the culture of Spanish-speaking countries. Topics include the four language skills: speaking, listening, reading, and writing. Emphasis is placed on active use of the language in class as well as basic communicative functions and structures. C-ID SPAN 100, CSU, UC

SPAN-121 Second Term Spanish

5 units SC

- 90 hours lecture per term
- *Prerequisite: SPAN-120 or two years of high school study or equivalent*
- *Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.*

This is the second course in a sequence of Spanish language courses. It addresses the understanding, speaking, reading and writing of the Spanish language. The course continues to expand vocabulary, communicative functions and structures. The course will continue the examination of the culture of the Spanish-speaking world. C-ID SPAN 110, CSU, UC

SPAN-150 Topics in Spanish

.3-4 units SC

- *Variable hours*

A supplemental course in Spanish to provide a study of current concepts and problems in Spanish and related subdivisions. Specific topics will be announced in the schedule of classes. CSU

SPAN-155 First Term Beginning Conversational Spanish

3 units SC

- 54 hours lecture per term
- *Note: This course does not satisfy major or general education requirements.*

This is the first term of the conversational Spanish series. Basic grammar and vocabulary as well as an introduction to Spanish culture will be covered. CSU

SPAN-156 Second Term Beginning Conversational Spanish

3 units SC

- 54 hours lecture per term
- *Recommended: SPAN-155 or equivalent*
- *Note: This course does not satisfy major or general education requirements.*

This is the second term of the beginning Spanish conversation series. It is a participatory class based on oral-aural practice. The preterit and imperfect tenses are introduced and contrasted. New vocabulary and cultural material are also covered. CSU

SPAN-157 Third Term Beginning Conversational Spanish

3 units SC

- 54 hours lecture per term
- *Recommended: SPAN-156 or equivalent*
- *Note: This course does not satisfy the academic requirements of the SPAN-120-121 series.*

This is the third term of the beginning Spanish conversation series. It is a participatory class based on practical material with oral-aural practice. The future and conditional tenses are emphasized and the subjunctive mood is introduced. New vocabulary and the examination of some of the cultures of the Spanish speaking world are covered. CSU

SPAN-220 Third Term Spanish

5 units SC

- 90 hours lecture per term
- *Prerequisite: SPAN-121 or three years of high school study or equivalent*
- *Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.*

This is the third course in a sequence of Spanish language courses. The course continues development of fluency in understanding, speaking, reading and writing Spanish. All verbal tenses are reviewed, expanded and refined, and advanced grammar concepts, new vocabulary, and idiomatic expressions are introduced. Selected readings about the culture and literature of Spain and other Spanish-speaking countries are explored. This course is taught entirely in Spanish. C-ID SPAN 200, CSU, UC

SPAN-221 Fourth Term Spanish

5 units SC

- 90 hours lecture per term
- *Prerequisite: SPAN-220 or four years of high school study or equivalent*
- *Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.*

This is a fourth term intermediate Spanish course which develops functional fluency in understanding, speaking, reading and writing Spanish. The use of the imperfect subjunctive is reviewed and expanded; the pluperfect subjunctive and the sequence of tenses are introduced as well as new vocabulary and idiomatic expressions. Selected readings about Latin American and Spanish culture and literature will be explored. This course is conducted entirely in Spanish. C-ID SPAN 210, CSU, UC

SPAN-230 Fifth Term Spanish

- 3 units SC
- 54 hours lecture per term
- Prerequisite: SPAN-221 or equivalent
- Note: Students may meet equivalency in a variety of ways. Students should seek assistance at Admissions and Records.

This is the fifth term advanced Spanish language course emphasizing reading, writing (prioritizing the mechanics of academic writing), listening, and speaking skills. The rich Hispanic heritage is explored through a wide range of materials including short stories, articles, poems, films, and documentaries. This course is taught entirely in Spanish. CSU, UC

SPAN-231 Sixth Term Spanish

- 3 units SC
- 54 hours lecture per term
- Prerequisite: SPAN-230 or equivalent

This is the sixth term advanced Spanish language course strengthening reading, writing (prioritizing the mechanics of academic writing), listening, and speaking skills. Deepening the exploration of the rich Hispanic heritage through a wide range of materials including novels, articles, poems, films, documentaries, and dramas. This course is taught entirely in Spanish. CSU, UC

SPAN-298 Independent Study

- .5-3 units SC
- Variable hours
- Note: Submission of acceptable educational contract to department and Instruction Office is required.

This course is designed for advanced students who wish to conduct additional research, a special project, or learning activities in a specific discipline/subject area and is not intended to replace an existing course. The student and instructor develop a written contract that includes objectives to be achieved, activities and procedures to accomplish the study project, and the means by which the supervising instructor may assess accomplishment. CSU

SPAN-299 Student Instructional Assistant

- .5-3 units SC
- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled. CSU

SPECIAL EDUCATION – SPEDU

Emily Stone, Dean
 Student Support Services
 Student Services Center, Room 122

Possible career opportunities

Students who earn a special education paraeducator/instructional assistant certificate of achievement or degree are prepared for entry-level employment assisting students and individuals with disabilities in education and rehabilitation settings.

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

**Associate in arts degree
 Special education paraeducator/
 instructional assistant**

Students completing the program will be able to...

- A. analyze state and federal legislation pertaining to general and special education.
- B. use a variety of instruction strategies and materials that respect individual differences.
- C. understand how culture affects relationships among children, families, and schooling.

The associate in arts degree in special education paraeducator/instructional assistant is designed as a two-year curricular pathway that offers students a broad general education while integrating an in-depth study of the skills and knowledge required to work with people with various disabilities in a variety of educational and related rehabilitation settings. The courses are intended to introduce students to career opportunities in special education or other disability related fields, and can provide preparation for transfer to four-year institutions to continue their course of study in general education and special education. Classes are designed to serve working individuals wishing to improve their applied skills and professional growth.

To earn a degree, students must complete each course used to meet a major requirement with a "C" grade or higher. Required courses are available in the evening and during the day. Certain courses may satisfy both major and general education requirements; however, the units are only counted once. Students who intend to transfer to a four-year program in education/teacher preparation should consult with a counselor regarding specific requirements.

<i>major requirements:</i>		<i>units</i>
ECE-124	Child Development and Psychology.....	3
PSYCH-122	Psychology in Modern Life.....	3
SPEDU-101	Introduction to Disabilities	3
SPEDU-102	Historical Perspectives of Disabilities and the Law	3
SPEDU-103	Classroom Strategies for the Special Education Paraeducator	3

plus 2-4 units from:

SPEDU-295	Occupational Work Experience Education in SPEDU.....	1-4
SPEDU-296	Internship in Occupational Work Experience Education in SPEDU	1-4

plus at least 6 units from:

COMM-128	Interpersonal Communication	3
ECE-123	Introduction to Curriculum in Early Childhood Education	3
ECE-125	Principles and Practices of Early Childhood Education	3
ECE-126	Health, Safety, and Nutrition for the Young Child.....	3
ECE-269	Children with Special Needs	3
EDUC-120	Introduction to Teaching in Elementary Schools.....	3
SIGN-280	American Sign Language (ASL) I	3
SIGN-281	American Sign Language (ASL) II	3
SIGN-282	American Sign Language (ASL) III	3

total minimum units for the major 23

**Certificate of achievement
Special education paraeducator/
instructional assistant**

Students completing the program will be able to...

- A. analyze state and federal legislation pertaining to general and special education.
- B. use a variety of instruction strategies and materials that respect individual differences.
- C. demonstrate and understanding of how culture affects relationships among children, families, and schooling.

This entry-level program prepares students with practical skills and knowledge to work with people with disabilities in a variety of educational and rehabilitation settings. Additionally, the courses are intended to introduce students to career opportunities in special education or other disability related fields, and can provide preparation for transfer to four-year institutions to continue a course of study in general education and special education. Classes are designed to serve working individuals wishing to improve their applied skills and professional growth.

To earn a certificate of achievement, students must complete each course used to meet a certificate requirement with a "C" grade or higher. Required courses are available in the evening and during the day.

<i>required courses:</i>	<i>units</i>
ECE-124	Child Development and Psychology..... 3
PSYCH-122	Psychology in Modern Life..... 3
SPEDU-101	Introduction to Disabilities
SPEDU-102	Historical Perspectives of Disabilities and the Law
SPEDU-103	Classroom Strategies for the Special Education Paraeducator

plus 2-4 units from:

SPEDU-295	Occupational Work Experience Education in SPEDU.....	1-4
SPEDU-296	Internship in Occupational Work Experience Education in SPEDU	1-4

plus at least 6 units from:

COMM-128	Interpersonal Communication	3
ECE-123	Introduction to Curriculum in Early Childhood Education	3
ECE-125	Principles and Practices of Early Childhood Education	3
ECE-126	Health, Safety, and Nutrition for the Young Child	3
ECE-269	Children with Special Needs.....	3
EDUC-120	Introduction to Teaching in Elementary Schools.....	3
SIGN-280	American Sign Language (ASL) I	3
SIGN-281	American Sign Language (ASL) II	3
SIGN-282	American Sign Language (ASL) III	3

total minimum required units 23

SPEDU-101 Introduction to Disabilities

- 3 units SC
- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course examines the historical and cultural context of disability issues and integrates international perspectives on the changing roles of people with disabilities. The legal and functional definitions of physical, communicative, sensory, psychological, neurological, and developmental disabilities will be covered. Acquired versus congenital disabilities will be differentiated, and all forms of chronic/ progressive illnesses will be explored. CSU, UC

SPEDU-102 Historical Perspectives of Disabilities and the Law

- 3 units SC
- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course examines the legal rights of people with disabilities, beginning with historical roots of the disability movement in the United States. The evolution of legislation governing access to education for people with disabilities will be emphasized. CSU, UC

SPEDU-103 Classroom Strategies for the Special Education Paraeducator

- 3 units SC
- 54 hours lecture per term
- Recommended: Eligibility for ENGL-122 or equivalent

This course explores the basic principles of pragmatic professional social skills strategies used by the special education para-professional within the educational workplace. Emphasis is placed on effective communication techniques that facilitate and manage appropriate student behavior and learning. CSU

SPEDU-295 Occupational Work Experience Education in SPEDU

1-4 units SC

- May be repeated three times
- Variable hours
- Note: In order to enroll in SPEDU-295, students must be employed, register for the course, complete an online Employment Form, and participate in an orientation. Employment Form can be accessed at www.dvc.edu/wrkk. Incomplete grades are not awarded for this course.

SPEDU-295 is supervised employment that extends classroom learning to the job site and relates to the student's chosen field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Five hours work per week or seventy-five hours work per term is equal to one unit. Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

SPEDU-296 Internship in Occupational Work Experience Education in SPEDU

1-4 units SC

- May be repeated three times
- Variable hours
- Note: In order to enroll in the SPEDU-296 course, students must be interning or volunteering, register for the course, complete an online Employment Form, and participate in an orientation. The Employment Form can be accessed at www.dvc.edu/wrkk. Incomplete grades are not awarded for this course.

SPEDU-296 is a supervised internship in a skilled or professional level assignment in the student's major field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Internships may be paid, non-paid, or some partial compensation provided. Five hours work per week or seventy-five hours work per term is equal to one unit (paid) or one unit for four hours work per week or sixty hours per term (unpaid work). Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

SPORTS MEDICINE/ATHLETIC TRAINING

See Kinesiology theory - KINES

STEAMFITTING – STMFT

Joseph Gorga, Dean

Physical Sciences and Engineering Division

Physical Sciences Building, Room 263

Possible career opportunities

In collaboration with Plumbers and Steamfitters Union Local 159 email: info@plumbers159.org and Plumbers-Steamfitters-Refrigeration Union Local 342 www.ua342.org, DVC offers two five-year apprenticeship programs: steamfitting and plumbing. Apprenticeship is training that is designed to prepare an individual for a career in the skilled crafts and trades. Apprentices develop technical skills, experience the sharing of assignments and see how technical tasks relate specifically with theoretical knowledge and interpretation. Apprentices earn a wage while learning. Enrollment in this program is restricted. You must be registered as an apprentice with the State of California to participate in the program and accepted into the apprenticeship program by our Union partners.

Plumbers-Steamfitters-Refrigeration Union Local 342, Joint Apprenticeship and Journeymen Training Office

935 Detroit Avenue
Concord, CA 94518-2501
925-686-0730

Plumbers and Steamfitters Local 159
1308 Roman Way
Martinez, CA 94553
800-443-0220 or
925-229-0883
email: info@plumbers159.org

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Associate in science degree Steamfitting

Students completing the program will be able to...

- A. discuss safety harness practices during rigging.
- B. apply mathematical formulas for calculating travel on a spool.
- C. demonstrate knowledge of using a band saw.
- D. use proper method in fabricating a copper spool.
- E. explain the responsibilities of a journey person with regards to training an apprentice on the job.
- F. demonstrate use of tubing benders.

This program is offered in collaboration with Plumbers and Steamfitters Union Local 159 and Plumbers-Steamfitters-Refrigeration (HVACR) Union Local 342. Apprenticeship is training that is designed to prepare an individual for a career in the skilled crafts and trades. Apprentices develop technical skills, experience the sharing of assignments and see how technical tasks relate specifically with theoretical knowledge and interpretation. Apprentices earn a wage while learning. Enrollment in this program is restricted. You must be registered as an apprentice with the State of California to participate in the program and accepted into the apprenticeship program by our union partners.

This program prepares students to become steamfitters and includes an introduction to the installation, maintenance, and repair of different types of pipe systems; tool use; material applications and storage; and safety. Upon completion of the program, students will be able to install pipe systems that move liquids or gases under high pressure and use many different materials and construction techniques, depending on the type of project. They will be able to follow building plans or blueprints and instructions from supervisors to lay out the job and work efficiently with the materials and tools of the trade.

To earn an associate in science degree with a major in steamfitting, students must complete 20 out of 31 core courses to meet their individual educational and career goals. In addition they must complete General Education Option 1 (DVC General Education). Students must complete each course used to meet a major requirement with a "C" grade or higher and maintain an overall GPA of 2.5 or higher in the coursework required for the major. The associate in science degree with a major in steamfitting is not a transfer program.

DVC steamfitting students who intend to transfer must consult with a program advisor or counselor to ensure that the requirements for transfer to baccalaureate institutions of their choice are met.

major requirements:

<i>complete at least 30 units from:</i>	<i>units</i>
STMFT-110 OSHA-CPR.....	1.5-2.5
STMFT-111 Trade Mathematics.....	1.5-2.5
STMFT-112 Use and Care of Tools.....	1.5-2.5
STMFT-113 Welding Safety/Plate Welding.....	1.5-2.5
STMFT-114 Oxygen/Acetylene Cutting.....	1.5-2.5
STMFT-115 Pipe Shop I.....	1.5-2.5
STMFT-116 Pipe Shop II.....	1.5-2.5
STMFT-117 Related Science in the Piping Trades.....	1.5-2.5
STMFT-118 Beginning Drawing and Plan Reading for the Piping Trades.....	1.5-2.5
STMFT-119 Advanced Drawing in the Piping Trade.....	1.5-2.5
STMFT-120 Instrumentation 1.....	1.5-2.5
STMFT-121 Instrumentation 2.....	1.5-2.5
STMFT-122 Steam Systems.....	1.5-2.5
STMFT-123 Electricity for Steamfitting.....	1.5-2.5
STMFT-124 Industrial Rigging.....	1.5-2.5
STMFT-125 Beginning AutoCAD.....	1.5-2.5
STMFT-126 Advanced AutoCAD.....	1.5-2.5
STMFT-127 Pumps.....	1.5-2.5
STMFT-128 Tube Bending.....	1.5-2.5
STMFT-131 Pipe Welding 1.....	1.5-2.5
STMFT-132 Welding 5.....	1.5-3.5
STMFT-133 Welding 6.....	1.5-3.5
STMFT-134 Welding 7.....	1.5-3.5
STMFT-135 Welding 8.....	1.5-3.5
STMFT-136 Welding 9.....	1.5-3.5
STMFT-137 Welding 10.....	1.5-3.5
STMFT-138 Orbital Welding.....	1.5-3.5
STMFT-140 Construction Management in Steamfitting.....	1.5-2.5
total minimum units for the major	30-50

**Certificate of achievement
Steamfitting**

Students completing the program will be able to...

- A. demonstrate proper isometric drawing technique.
- B. apply mathematical formula for calculating load weight on pipe.
- C. use the proper method to cut a steel plate, using an OXY/ACT torch.
- D. explain proper brazing technique for copper.
- E. demonstrate proper knot tying.
- F. demonstrate proper preparation for a beveled coupon.

This program is offered in collaboration with Plumbers and Steamfitters Union Local 159 and Plumbers-Steamfitters-Refrigeration (HVACR) Union Local 342. Apprenticeship is training that is designed to prepare an individual for a career in the skilled crafts and trades. Apprentices develop technical skills, experience the sharing of assignments and see how technical tasks relate specifically with theoretical knowledge and interpretation. Apprentices earn a wage while learning. Enrollment in this program is restricted. You must be registered as an apprentice with the State of California to participate in the program and accepted into the apprenticeship program by our union partners.

This program prepares students to become steamfitters and includes an introduction to the installation, maintenance, and repair of different types of pipe systems; tool use; material applications and storage; and safety. Upon completion of the program, students will be able to install pipe systems that move liquids or gases under high pressure and use many different materials and construction techniques, depending on the type of project. They will be able to follow building plans or blueprints and instructions from supervisors to lay out the job and work efficiently with the materials and tools of the trade.

To earn a certificate of achievement, students must complete 14 out of 19 core courses. Students must complete each course used to meet a major requirement with a "C" grade or higher and maintain an overall GPA of 2.5 or higher in the coursework required for the certificate. The courses required for the certificate of achievement also meet some of the requirements of the major for the associate of science degree.

<i>complete at least of 21 units from:</i>	<i>units</i>
STMFT-110 OSHA-CPR.....	1.5-2.5
STMFT-111 Trade Mathematics.....	1.5-2.5
STMFT-112 Use and Care of Tools.....	1.5-2.5
STMFT-113 Welding Safety/Plate Welding.....	1.5-2.5
STMFT-114 Oxygen/Acetylene Cutting.....	1.5-2.5
STMFT-115 Pipe Shop I.....	1.5-2.5
STMFT-116 Pipe Shop II.....	1.5-2.5
STMFT-117 Related Science in the Piping Trades.....	1.5-2.5
STMFT-118 Beginning Drawing and Plan Reading for the Piping Trades.....	1.5-2.5
STMFT-119 Advanced Drawing in the Piping Trade.....	1.5-2.5
STMFT-120 Instrumentation 1.....	1.5-2.5
STMFT-121 Instrumentation 2.....	1.5-2.5
STMFT-122 Steam Systems.....	1.5-2.5
STMFT-123 Electricity for Steamfitting.....	1.5-2.5
STMFT-124 Industrial Rigging.....	1.5-2.5
STMFT-125 Beginning AutoCAD.....	1.5-2.5
STMFT-126 Advanced AutoCAD.....	1.5-2.5
STMFT-127 Pumps.....	1.5-2.5
STMFT-128 Tube Bending.....	1.5-2.5
total minimum required units	21-35

**Certificate of accomplishment
Steamfitting**

Students completing the program will be able to...

- A. explain the responsibilities of a journey person with regards to training an apprentice on the job.
- B. apply mathematical formula for calculating load weight on pipe.
- C. demonstrate proper knot tying.
- D. use the proper method to cut a steel plate, using an OXY/ACT torch.

This program is offered in collaboration with Plumbers and Steamfitters Union Local 159 and Plumbers-Steamfitters-Refrigeration (HVACR) Union Local 342. Apprenticeship is training that is designed to prepare an individual for a career in the skilled crafts and trades. Apprentices develop technical skills, experience the sharing of assignments and see how technical tasks relate specifically with theoretical knowledge and interpretation. Apprentices earn a wage while learning. Enrollment in this program is restricted. You must be registered as an apprentice with the State of California to participate in the program and accepted into the apprenticeship program by our union partners.

Program content includes an introduction to the installation, maintenance, and repair of different types of pipe systems; tool use; material applications and storage; and safety. Upon completion of the program, students will be able to install pipe systems that move liquids or gases under high pressure and use many different materials and construction techniques, depending on the type of project. They will be able to follow building plans or blueprints and instructions from supervisors to lay out the job and work efficiently with the materials and tools of the trade.

To earn a certificate of accomplishment students must complete five out of seven core courses. Students must complete each course used to meet a major requirement with a "C" grade or higher and maintain an overall GPA of 2.5 or higher in the coursework required for the certificate. The courses required for the certificate of accomplishment also meet some of the requirements of the certificate of achievement and major for the associate of science degree.

complete at least 10 units from:	units
STMFT-110 OSHA-CPR.....	1.5-2.5
STMFT-111 Trade Mathematics.....	1.5-2.5
STMFT-112 Use and Care of Tools.....	1.5-2.5
STMFT-113 Welding Safety/Plate Welding.....	1.5-2.5
STMFT-114 Oxygen/Acetylene Cutting.....	1.5-2.5
STMFT-115 Pipe Shop I.....	1.5-2.5
STMFT-116 Pipe Shop II.....	1.5-2.5
total minimum required units	10.5 – 17.5

STMFT-110 OSHA-CPR

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section. This class is the same as PLUMB-110.

This course covers the regulations governed by OSHA 30 that provide and recognize safe work practices. The student will receive certification in Cardio-Pulmonary Resuscitation and First Aid.

STMFT-111 Trade Mathematics

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section. This class is the same as PLUMB-111.

This course covers the approaches to mathematical problem solving used in pipe fitting and metric conversion.

STMFT-112 Use and Care of Tools

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

This course presents an introduction to the identification of tools encountered in the industrial environment and the proper use of trade-related tools.

STMFT-113 Welding Safety/Plate Welding

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

This course presents an introduction to welding safety and theory. Student will also be introduced to plate arc welding.

STMFT-114 Oxygen/Acetylene Cutting

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

This course presents an introduction to oxygen and acetylene cutting and safety. The processes on how to cut for various plate thicknesses and layouts will also be discussed and practiced.

STMFT-115 Pipe Shop I

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

This course is designed to give related technical instruction, to enhance the apprentice's on-the-job training. The use of various pipe and fitting materials and their application; including using pipes and pipe fitting materials to build piping projects based on isometric drawings.

STMFT-116 Pipe Shop II

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

This course is designed to give related technical instruction to enhance the apprentice's on-the-job training. Student will be introduced to basic isometric drawing and steam systems with copper connections to be made with solder and brazing procedures.

STMFT-117 Related Science in the Piping Trades

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section. This class is the same as PLUMB-117.

This course covers the scientific and mechanical principles that are basic to the work of the piping industry.

STMFT-118 Beginning Drawing and Plan Reading for the Piping Trades

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section. This class is the same as PLUMB-118.

This course covers the interpretation of drawings and sketches associated with piping installation.

STMFT-119 Advanced Drawing in the Piping Trades

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section. This class is the same as PLUMB-119.

In this course students will Interpret, coordinate and make drawings and sketches associated with piping installation.

STMFT-120 Instrumentation 1

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

This course is designed to give related technical instruction to enhance the apprentice's on-the-job training. Student will be introduced to the instrumentation includes basic descriptions of processes, loop diagrams and documentation in the instrumentation field.

STMFT-121 Instrumentation 2

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

This course is designed to give related technical instruction to enhance the apprentice's on-the-job training. Student will be introduced to the second part Instrumentation that will give the students the knowledge of pneumatic controls, liquid level instruments, analyzers and fiber optic signals.

STMFT-122 Steam Systems

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

This course is designed to give related technical instruction to enhance the apprentice's on-the-job training. Student will be introduced to the properties of saturated steam, traps, boilers and heating systems.

STMFT-123 Electricity for Steamfitting

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

This is an introductory course in electrical concepts, components, systems, and equipment. Ohm's and Kirchoff's laws are used to calculate and measure resistance, voltage, amperage, power in circuits, and safety in the field of steamfitting.

STMFT-124 Industrial Rigging

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

This course presents the study of rigging for the pipe trades and emphasizes principles of safety. Topics will include safety, load limits, crane ratings, basic knots, and organizing a rigging plan.

STMFT-125 Beginning AutoCAD

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

This introductory course presents the fundamentals of AutoCAD and its application to the creation of technical drawings. Hands-on training is utilized to provide a comprehensive overview of the software package and its applications to technical drafting.

STMFT-126 Advanced AutoCAD

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

This course is designed for students with previous knowledge and experience in using AutoCAD. Three-dimensional modeling, solid models, customization, and optimal application of AutoCAD are presented.

STMFT-127 Pumps

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

This course presents the practical and theoretical aspects of pump systems. Topics include concepts and theory as well as common systems, components, devices, installation, and operation. The laboratory emphasizes hands-on exercises in the installation, operation, and maintenance of industrial pumps.

STMFT-128 Tube Bending

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

This course presents the practical and theoretical aspects of tube bending. Topics include theory and concepts of tube bending, as well as components, tools, and installation. The laboratory emphasizes hands-on exercises in the mechanical skills of industrial tube bending including calculating angles, different types of tubing, valves, fittings, clamps and installation.

STMFT-129 Union Heritage

3 units LR

- 54 hours lecture per term
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

This course presents the heritage and traditions of the United Association, which represents plumbers, steamfitters, and welders among other occupations. Topics include partnerships between the United Association and local union contractors, good work practices, and history of the pipe trades.

STMFT-131 Pipe Welding 1

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

This course covers the practical and theoretical aspects of welding processes for the steamfitting apprentice. Safe procedures, components, regulator settings and practices for use of the cutting torch, and groove pipe welding are presented.

STMFT-132 Welding 5

1.5-3.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

This course is an introduction to the techniques and methods for welding processes for the steamfitting apprentice. Students will learn how to identify various welding rods, electrodes, and their applications.

STMFT-133 Welding 6

1.5-3.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

This course is an introduction to the techniques and methods for welding processes for the steamfitting apprentice. Techniques studied will include string beads on an open grooved pipe weld and proper torch positioning for advanced torch cutting.

STMFT-134 Welding 7

1.5-3.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

This course is an introduction to the techniques and methods for welding processes for the steamfitting apprentice. The topics will include proper handling of grinders, weld coupons, identification of hazards, and an introduction to square groove welding processes.

STMFT-135 Welding 8

1.5-3.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

This course is an introduction to the techniques and methods for welding processes for the steamfitting apprentice. Techniques studied will include single vee groove welding in various positions.

STMFT-136 Welding 9

1.5-3.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

This course introduces the techniques and methods for welding processes for steamfitting apprentices. Topics include identification of trapped slag using an x-ray image as well as completing a root bead in a welding coupon in 6G position.

STMFT-137 Welding 10

1.5-3.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

This course is an introduction to the techniques and methods for welding processes for the steamfitting apprentice. The topics will include identification of materials, butt-weld root and filler beads, and tools needed for stainless steel welding processes.

STMFT-138 Orbital Welding

1.5-3.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

This course covers the practical and theoretical aspects of automatic orbital welding machine processes for the steamfitting apprentice. Topics include safety procedures, components, settings, calibration, and practice using the orbital welding machine.

STMFT-140 Construction Management in Steamfitting

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

This course offers an introduction to construction management in steamfitting. Topics include administrative procedures, plans and specifications, scheduling, permits, variances, and forms of communication.

STMFT-141 Hydrostatic Testing

1.5-2.5 units LR

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local Union responsible for this section.

This course presents the proper procedures to successfully complete a hydrostatic test on a piping system. Demonstrations of test packages, hydrostatic pump test procedures, pressure and safely securing the testing area will be included.

STMFT-150 Topics in Steamfitting

.3-4 units SC

- Variable hours
- Note: This program is sponsored by the International Brotherhood of Steamfitters and Plumbers and is for apprenticeship only. Course enrollment is limited to those who have been accepted by the local union responsible for the section.

A supplemental course in steamfitting to provide a study of current concepts and problems in steamfitting and related subdivisions. Specific topics will be announced in the schedule of classes.

STMFT-299 Student Instructional Assistant

.5-3 units SC

- Variable hours
- Note: Applications must be approved through the Instruction Office. Students must be supervised by a DVC instructor.

Students work as instructional assistants, lab assistants and research assistants in this department. The instructional assistants function as group discussion leaders, meet and assist students with problems and projects, or help instructors by setting up laboratory or demonstration apparatus. Students may not assist in course sections in which they are currently enrolled.

Certificate of achievement - CSU General Education

This certificate is designed for students planning to transfer to the California State University (CSU) System. It offers students a program of study which meets the CSU General Education requirements. Although the certificate recognizes the completion of lower division CSU general education requirements, it does not guarantee admission to a specific campus within the CSU system nor does it guarantee admission to a specific major. Some majors and colleges may require a different lower division preparation and/or a higher GPA than is necessary for this certificate.

Students who intend to transfer must meet all current CSU transfer requirements including minimum GPA and eligibility for certification. Students are strongly advised to meet with a counselor to discuss transfer requirements and lower division major preparation that is needed for their intended transfer school. (Also see CSU GE transfer information in this catalog.)

total minimum required units (CSU GE) 39

TRANSFER STUDIES – CSU

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Certificate of achievement

CSU general education breadth

Students completing the program will be able to...

- communicate effectively, both verbally and in writing.
- critically analyze and solve problems using the appropriate technique for the issue at hand, including appropriate use of logic, mathematics, multi-disciplinary, and cultural considerations where applicable.
- critically examine the function, media, subject matter, organization, aesthetic, style, and relative excellence of representative examples of the arts, literature, philosophy, and foreign languages including approaches from various historical, cultural, and gender-based origins.
- develop an understanding of the information available, the perspectives and approaches of the physical, biological, social, and behavioral sciences, appreciating the power and limits of these methods of inquiry and both individual, ethical, and societal responsibilities.

TRANSFER STUDIES – IGETC

Program-level student learning outcomes

Program learning outcomes are subject to change. The most current list of program learning outcomes for each program is published on the DVC website at www.dvc.edu/slo.

Certificate of achievement

Intersegmental General Education Transfer Curriculum (IGETC)

Students completing the program will be able to...

- communicate effectively, both verbally and in writing.
- critically analyze and solve problems using the appropriate technique for the issue at hand, including appropriate use of logic, mathematics, multi-disciplinary, and cultural considerations where applicable.
- critically examine the function, media, subject matter, organization, aesthetic, style, and relative excellence of representative examples of the arts, literature, philosophy, and foreign languages including approaches from various historical, cultural, and gender-based origins.
- develop an understanding of the information available, the perspectives and approaches of the physical, biological, social, and behavioral sciences, appreciating the power and limits of these methods of inquiry and both individual, ethical, and societal responsibilities.
- organize and present information in person in a logical and understandable manner.
- demonstrate proficiency in a language other than English, and knowledge of the associated history and culture, at the level expected from two years of high school study (for UC transfer).

Certificate of achievement - Intersegmental General Education Transfer Curriculum - IGETC

This certificate is designed for students planning to transfer to either the University of California (UC) or the California State University (CSU) System. It offers students a program of study which meets IGETC requirements. Although the certificate recognizes the completion of lower division IGETC requirements, it does not guarantee admission to a specific campus or school within the UC or CSU systems nor does it guarantee admission to a specific major. Some majors and colleges may require a different lower division preparation and/or a higher GPA than is necessary for this certificate.

Students who intend to transfer must meet all current IGETC transfer requirements including minimum GPA and eligibility for certification. Students are strongly advised to meet with a counselor to discuss transfer requirements and lower division major preparation that is needed for their intended transfer school. (Also see IGETC transfer information in this catalog)

total minimum required units (IGETC) 34

Note: Students intending to transfer to the CSU system are advised that an additional six units of study are required for the American Institutions graduation requirement from CSU.

WORKFORCE PREPARATION - WRKP

Emily Stone, Dean
Student Support Services
Student Services Center, Room 122

WRKP-090NC Addressing Barriers to Employment I: Getting a Job

0 units P/NP
• 18 hours lecture

This course prepares students with barriers to employment for the job search. Skills and tools needed by all applicants, such as a resume, cover letter, and networking are presented. Strategies to modify these skills and tools for specific populations, such as people with a disability, criminal record, former foster youth, or CalWORKs recipient are also covered. Students will tailor their own job search based on their objectives and specific circumstances.

WRKP-091NC Addressing Barriers to Employment II: Keeping a Job

0 units P/NP
• 18 hours lecture

This course prepares students with barriers to employment for the job search. Skills and tools needed by all applicants, such as a resume, cover letter, and networking are presented. Strategies to modify these skills and tools for specific populations, such as people with a disability, criminal record, former foster youth, or CalWORKs recipient are also covered. Students will tailor their own job search based on their objectives and specific circumstances.

WORK EXPERIENCE - WRKX

Beth Arman, Senior Dean
Career and Community Partnerships
Administration Building, Room 121

Students may earn units for learning on-the-job through Work Experience Education. It is part of the total educational process that assists students in exploring and wisely choosing a career, preparing for full-time employment, and advancing in careers of their choice.

These courses are for students who are working full or part-time and interested in earning units while gaining practical work experience, either for pay, as interns, or as volunteers. College credit is granted for the following: WRKX-160: Students who are employed but have not declared a major or their jobs are unrelated to their major. WRKX-170: Students who are employed and their jobs are related to their major. WRKX-180: Students who are participating in internship or volunteer opportunities in jobs that are related to their major.

WRKX-160 General Work Experience Education

1-3 units SC

- May be repeated three times
- Variable hours
- *Note: In order to enroll in a WRKX course, students must be employed, register for the course, complete an online employment form, and participate in an orientation. Students may earn one unit for five hours work per week or seventy-five hours work per term. Does not meet requirements for veterans' benefits. Employment form can be accessed at www.dvc.edu/wrkx. Incomplete grades are not awarded for WRKX. Students may repeat to a maximum of twelve units; an appeal will be required after three repetitions.*
- Formerly COOP-160

WRKX-160 is supervised employment for students whose jobs do not relate to their college major or area of career interest. Under the supervision of a college instructor, students will acquire employability skills, desirable work habits, and career awareness through on-the-job and other learning experiences. CSU

WRKX-170 Occupational Work Experience Education

1-4 units SC

- *May be repeated three times*
- *Variable hours*
- *Note: In order to enroll in a WRKX-170, students must be employed, register for the course, complete an online employment form, and participate in an orientation. Employment forms can be accessed at www.dvc.edu/wrkx. Incomplete grades are not awarded for this course.*
- *Formerly COOP-170*

WRKX-170 is supervised employment that extends classroom learning to the job site and relates to the student's chosen field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Five hours per week or 75 hours work per term is equal to one unit. Students may earn up to a maximum of 16 units; repetition allowed per Title 5, Section 55253. CSU

WRKX-180 Internship in Occupational Work Experience Education

1-4 units SC

- *May be repeated three times*
- *Variable hours*
- *Note: In order to enroll in the WRKX-180 course, students must be interning or volunteering, register for the course, complete an online employment form, and participate in an orientation. The employment form can be accessed at www.dvc.edu/wrkx. Incomplete grades are not awarded for this course.*
- *Formerly COOP-180*

WRKX-180 is a supervised internship in a skilled or professional level assignment in the student's major field of study or area of career interest. Under the supervision of a college instructor, students will engage in on-the-job and other learning experiences that contribute to their employability skills and occupational or educational goals. Internships may be paid, non-paid, or some partial compensation provided. Five hours work per week or seventy-five hours work per term is equal to one unit (paid) or one unit for four hours work per week or sixty hours per term (unpaid work). Students may earn up to a maximum of sixteen units; repetition allowed per Title 5 Section 55253. CSU

FACULTY AND ADMINISTRATORS

chapter five

catalog 2019-2020



Faculty and administrators	388
Index	396



FACULTY AND ADMINISTRATORS

Abbott, Daniel

faculty - architecture
B.A. - University of Oregon

Abele, Robert

faculty - philosophy
B.A. - University of Dayton
M.Div. - Mount St. Mary
M.A. - Athenaeum of Ohio
Ph.D. - Marquette University

Agnost, Katy

faculty - English
B.A. - UC Davis
M.A. - San Francisco State University

Akanyirige, Emmanuel

faculty - mathematics
B.S., M.S. - Ball State University

Akiyama, Mark

faculty - psychology
B.A. - UC Berkeley
Ph.D. - University of Michigan

Al-Shabazz, Isma'il

manager - custodial services

Amato, Nicholas

faculty - computer science
B.S. - Western Michigan University
M.B.A. - UC Berkeley

Ang, Lisa

faculty - English
B.A. - UC Berkeley
M.A. - San Francisco State University

Antonakos, Cory

faculty - chemistry
B.S. - George Washington University
M.S. - UC Berkeley

Aranda, Alberto

faculty - counseling
certificate - CSU Los Angeles
B.S., M.S. - CSU Los Angeles

Arman, Beth

senior dean - workforce development
B.A. - University of Michigan, Ann Arbor
M.A. - Harvard University, Kennedy
School of Government

Armendariz, Rosa

dean - student engagement and equity
B.A. - Stanford University

Armstrong, Terry L.

faculty - counseling
B.A., M.A. - CSU Fresno

Bailey, Jamie Lynn

faculty - counseling
B.A., M.A. - CSU Hayward

Bairos, Monte

faculty - music
A.A. - Merced College
B.A. - CSU Stanislaus
M.M. - University of Colorado, Boulder

Bakhshay, Shirin

faculty - psychology
B.S. - UC Berkeley
M.S., Ph.D. - UC Santa Cruz

Ballif, Daniela

fiscal services manager
B.S. - University of Tirana
M.B.A. - Brigham Young University

Barber, Thomas P.

faculty - English
B.A. - Saint Mary's College
M.A. - San Francisco State University
M.F.A. - Pacific Lutheran University

Barksdale, Jessica

faculty - English
B.A. - CSU Stanislaus
M.A. - San Francisco State University

Beaulieu, Ellen

faculty - chemistry
B.S. - University of Georgia
Ph.D. - UC Berkeley

Bennett, Troy

faculty - art digital media
B.F.A. - Plymouth State University
M.F.A. - Rochester Institute of Technology

Bernhardt, Paul J.

faculty - culinary arts
A.S. - Johnson and Wales College
B.E. - San Francisco State University

Bersamina, Leo

faculty - art
A.A. - Cabrillo College
B.F.A. - San Francisco State University
M.F.A. - Yale University

Bessie, Adam

faculty - English
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The names on the previous pages represent full-time faculty and administrators. Part-time faculty names appear on the DVC website in the faculty/staff directory www.dvc.edu/about/administration/directories.html

INDEX

A

A.A./A.S. degree (see Associate degree) 49
 Academic calendar 9
 Academic integrity 33
 Academic dismissal 32
 Academic freedom statement 7
 Academic honors 28
 Academic probation 32
 Academic renewal 31
 Accounting 125
 Addiction studies 64
 Administration of justice 67
 Admission requirements 9
 Advanced placement 19
 Alternatives to course credit 19
 Anthropology 74
 Appeals 29, 32
 Arabic 77
 Architecture 78
 Art 83
 Art digital media 94
 Art history 104
 Assessment center 13
 Associate degree 49
 Associate degree list 59
 Astronomy 106
 Athletics (see Kinesiology) 292
 Auditing of classes 17

B

Biological science 107
 Board of Governors' fee waiver (see California Promise Grant) 12
 Books, supplies and course material fees 10
 Broadcast communication arts (see Film, television, and electronic media) 241
 Business 115
 Business accounting 125
 Business management 130
 Business marketing 132
 Business real estate 133

C

Cal Grant 12
 California Promise Grant 12
 California residence status 9
 California resident enrollment fees 10
 CalWORKs program 13
 Campus security act 43
 Career 134
 Career and employment services 13
 Career education programs 58
 Catalog rights 50
 Certificate list 59

Chemistry 135
 Chinese 137
 Class schedule 8
 CLEP 24
 Code of conduct 35
 Communication studies 139
 Complaints about staff, managers or faculty 44
 Computer Center 13
 Computer information systems 142
 Computer network technology 148
 Computer science 153
 Construction 157
 Continuous enrollment for degrees and certificates 50
 Contra Costa Community College District 7
 Cooperative Agencies Resources for Education 13
 Cooperative Education (see Work experience) 385
 Counseling 164
 Course co-requisites 17
 Course descriptions 62
 Course material fees 10
 Course prerequisites 17
 Course repetition 31
 Course requirements and credit 18
 Course substitution policy 19
 Credit by exam 27
 CSU transfer 47, 54, 63
 CSU general education requirements 54
 Culinary arts 165

D

Dance 176
 Debts, student 11
 Dental assisting 181
 Dental hygiene 184
 Disability support services 13
 Dismissal 32
 Drama 190
 Drug free campus 44

E

Early childhood education 196
 Economics 207
 Education 209
 Electrical/electronics technology 210
 Eligibility for admissions 9
 Energy systems 214
 Engineering 216
 Engineering technology 220
 English 227
 English as a Second Language 235
 Enrollment fee 10
 Enrollment lab 13
 Environmental Science 239

EOPS 13
Equal opportunity policy 15
ESL 235
Evening classes 8
Extended Opportunities Programs and Services
(EOPS) 13

F

Faculty and administrators 388
Fairness in grading 29
Federal loans 12
Federal PELL Grant 12
Federal Supplemental Educational Opportunity
Grant (FSEOG) 12
Federal Work Study (FWS) 12
Fees 10, 11
Field trip fees 10
Field trips 10, 27
Film, television, and electronic media 241
Financial aid 12, 13
Freedom of expression policy 33
French 248
Full-time status 16

G

General education requirements, associate degrees
47, 48, 50
General education requirements, CSU 48, 54
General education transfer curriculum,
intersegmental (IGETC) 48, 52
Geography 251
Geology 257
German 259
Grade changes, corrections, student appeals 29
Grade policy 28
Graduation honors 28
Graduation requirements 49
Grants, student 12
Grievance procedures 15

H

Health science 262
Heating, ventilation, air conditioning and
refrigeration 266
History 270
Honors 28
Horticulture 274
Humanities 281
Hybrid courses (see Partially online courses) 8

I

IGETC 48
Impacted majors 47
Improving a GPA 31
Incomplete grades 28
Independent study courses 17
Industrial design 283

Instructional material policy 33
Instructors' rights policy 31
Interdisciplinary studies 285
International students 10
Institutional learning outcome 7
Italian 285

J

Japanese 288
Journalism 290

K

Kinesiology 292

L

Leave of absence 28
Library services 13
Library studies 316
Library technology 316
Loans 12

M

Management (see Business management) 130
Marketing (see Business marketing) 132
Material fees 10
Mathematics 320
Matriculation 33
Military service credit 27
Music 329
Music industry studies 338

N

Non-residence status 9
Non-resident fees 10
Nutrition 343

O

Oceanography 345
Online and partially online classes 8
Open course policy 15
Other aid and benefits 12

P

Parking fees 11
Partially online courses 8
Pass/no pass (P/NP) 28
PELL Grant, federal 12
Persian 346
Philosophy 347
Photography (see art) 83
Physical education (see Kinesiology) 292
Physical science 350
Physics 351
Plumbing 353
Political science 357

Prerequisites 17
 Privacy rights 43
 Probation and dismissal, progress 32
 Program length 63
 Psychology 359

R

Readmission 32
 Real estate (see Business real estate) 133
 Records (transcripts) 10
 Refunds 11
 Remedial unit limit 16
 Repeating courses 16
 Residence status 9
 Respiratory therapy 363
 Right-to-know policy, student 43
 ROTC 27
 Russian 365

S

Scholarships 12
 Sexual harassment policy 34
 Sign language 367
 Smoking policy (see Tobacco-free policy) 44
 Social science 367
 Sociology 370
 Spanish 373
 Special education 376
 Speech (see Communication studies) 139
 Sports medicine/athletic training (see Kinesiology) 292
 Steamfitting 378
 Student appeals for grade changes 29
 Student choice (SC) grades 29
 Student code of conduct 35
 Student grievance policy 44
 Student privacy rights 43
 Student records 10
 Student responsibilities 34
 Student right-to-know and campus security act 43
 Student rights-matriculation 33
 Student union fee 10
 Study abroad 13
 Summer classes 8

T

Term unit limit 16
 Tobacco-free policy 44
 Transcripts 10
 Transfer 10, 13, 18, 47
 Transfer services 13
 Transfer studies 384
 Transfer to CSU 47
 Transfer to DVC 18
 Transfer to UC 48
 Tuition (see fees) 10
 Tutoring services 13

U

UC - Transfer 48
 Unit limits 16
 Upper division coursework 18

V

Variable unit courses 16
 Verification of enrollment fees 11
 Veterans benefits 12

W

Welcome Services 13
 Withdrawal 32
 WorkAbility III program 13
 Work experience 385
 Work-Study 12



DVC CATALOG 2019-2020

Editing

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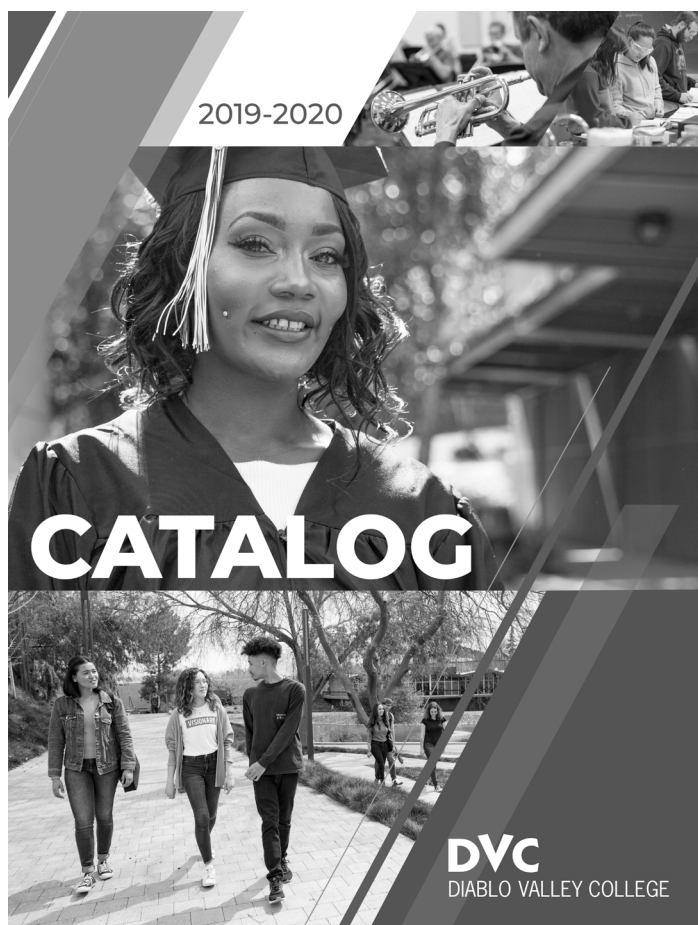
Sharrie Bettencourt

Photography

Mike Bettencourt
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Printing

The DVC Printshop



An online version of this catalog is available at
www.dvc.edu/catalog



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