ACCREDITATION
Hartnell College is accredited by the Western Association of Schools and Colleges, (10 Commercial Boulevard, Suite 204, Novato, CA 94949 (415) 506-0234), the American Veterinary Medical Association, The California Board of Registered Nursing, the California Board of Vocational Nurse and Psychiatric Technician Examiners, the National Academy of Early Childhood Programs, and the California Community Colleges Board of Governors. It has the approval of the State Department of Education to train veterans under Public Law 874 and Public Law 550. It also has the approval of the U.S. Immigration and Naturalization Service to educate foreign students.
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Welcome to Hartnell College

MISSION STATEMENT
Hartnell College provides the leadership and resources to ensure that all students shall have equal access to a quality education and the opportunity to pursue and achieve their goals. We are responsive to the learning needs of our community and dedicated to a diverse educational and cultural campus environment that prepares our students for productive participation in a changing world.

VISION STATEMENTS
- Hartnell College shall provide its diverse communities and student population with equal opportunities for educational access and success.
- Hartnell College shall implement programs and services and recognize its culturally diverse community, and provide fair and ethical treatment of its entire population.
- Hartnell College shall actively recruit, support, and retain the best personnel.
- Hartnell College shall seek and dedicate resources to be a technologically advanced institution.
- Hartnell College shall support a learning environment that rewards creativity, innovation, and risk-taking.
- Hartnell College shall anticipate and respond to change.
- Hartnell College shall be a valuable resource and a facilitator of changes for its communities.
- Hartnell College shall enhance its local and global community partnerships and outreach activities.
- Hartnell College shall excel in the recruitment, retention, and placement of students.

ACADEMIC FREEDOM

Foreword
The Hartnell Community College Governing Board believes that faculty and students have the right to pursue teaching and learning with full freedom of inquiry. In order to assure that this viewpoint is understood by all, the Board adopts the following policy.

On Academic Freedom and Responsibility
Academic freedom gives the faculty member the right to interpret findings and to communicate conclusions without being subject to any discrimination, interference or pressures because those conclusions are at variance with constituted authorities or organized groups. In the classroom, therefore, the faculty member is entitled to exercise this freedom within the course objectives and policies approved by the Board of Trustees.

Academic freedom carries with it corresponding responsibility, which emphasizes the obligation to study, to investigate, to present and interpret, and to discuss facts and ideas relevant to the curriculum in all branches and fields of knowledge. The faculty member will acknowledge controversial views, identify any bias or advocacy, and show respect for opinions held by others.
OPEN ENROLLMENT

It is the policy of the Hartnell Community College District that, unless health, safety, or limited facilities is a factor in the conduct of a course, every course, course section, or class, wherever offered and maintained by the college, shall be fully open to enrollment and participation by any person who has been admitted to the college and who meets the required prerequisites for such course, course section, or class.

CLASS SCHEDULING

Day Classes

Day Classes are available from 7:00 a.m. to 4:30 p.m.

Evening Classes

Evening classes are specifically planned to reflect a full range of academic and vocational programs offered by Hartnell College. The only difference between day and evening classes is the time frame. Academic standards, class contact, and student performance are the same for both evening and day classes. Evening classes are scheduled between the hours of 4:30 p.m. and 10 p.m.

Weekend Classes

A wide range of class offerings on Saturday and Sunday is published in the Schedule of Classes for those persons whose schedules do not permit them to attend Hartnell during the weekdays.

Condensed Courses

Hartnell offers condensed courses, including a comprehensive Summer Session, a Winter Intersession, and Panther Express late-start courses throughout the year. All classes offered are the same as those taught during the regular academic year. Condensed courses provide students with more flexibility in pursuing their educational goals while balancing work and family responsibilities.
THE CAMPUS
The Hartnell College main campus is located a few blocks from downtown Salinas. The main campus at 411 Central Avenue consists of many academic facilities, most of which were built within the past twenty years. The College facilities consist of: the Center for Assessment and Lifelong Learning; the College Center; College Annex; Child Development Center; Merrill Hall (Science); Classroom Administration, Building Technology Building; Library; Physical Education Buildings; Human Resources and Performing and Visual Arts facilities.

Cars on Campus
Operation of motor vehicles on Hartnell College campus must be conducted in a manner which ensures the safety of the driver, passengers, pedestrians, and/or any others, and which prevents damage to College property. The college is not responsible for loss of any property or damage to any property sustained by any person parking on campus.

The campus speed limit is 10 miles per hour.

Parking on Campus
PARKING PERMITS ARE REQUIRED TO PARK ON CAMPUS. ALL PARKING IS ON A FIRST-COME, FIRST-SERVED BASIS. PARKING PERMITS ARE SOLD WITH NO GUARANTEE OF SPACE AVAILABILITY.

Parking on campus is a privilege extended by the Board of Trustees to those who have college-related business. Drivers of vehicles on college property shall comply with the rules and regulations of the college. Parking privileges can be withdrawn for violations of parking regulations. Regulations and review process information are published on the Hartnell web site at www.hartnell.edu/safety/parking_regulations. For questions or assistance contact Campus Safety at (831) 755-6888. Permits may be obtained from the Cashier’s Office at any time during the semester.

Cost of Parking Permits:
Fall/Spring Semester: $25.00 (each semester)
Summer Session: $10.00

Daily Parking Permits: are available from coin-operated machines in various locations throughout the campus parking lots and garage. These permits are valid only the day the permit is purchased.

Cost of Parking in both outside lots and garage.

All Day Parking- $1.00 (4 quarters)

Parking permits must be displayed in plain view in the appropriate location according to Parking Regulations or a citation will be issued. There are no exceptions. Should you receive a citation, follow the written instructions on the back of the citation.

Restricted parking where regular permits are not valid: 20 minute zones (green), staff spaces (orange), handicapped spaces (blue) and car pool spaces.

Car Pool Parking requires the purchase of a student permit and an additional permit which can be obtained without additional cost through the Cashier’s Office.

Enforcement
Campus parking and traffic safety regulations are enforced by Hartnell College and the Salinas Police Department. Campus Safety issues parking citations for violations. The Parking Enforcement Center in San Ramon, CA administers collections and appeals. For additional information contact Campus Safety at (831) 755-6888.

College Cafeteria
The cafeteria is located in the College Center. The Steinbeck Hall dining room provides seating for 250 and an additional 200 in the Commons area. An extensive menu offers a wide variety of food. The ASHC student body card can be used as a debit card to pay for meals. Catering to the campus community is also available. Vending machines are located throughout the campus. The hours of operation are:

Fall and Spring semester
Monday - Thursday 7:30 am - 8:30 pm
Friday 7:30 am - 2:00 pm

Summer session
Monday - Thursday 7:30 am - 2:00 pm

College Store
Hartnell College Store is a non-profit organization owned and operated by Follett Higher Education Group. The store stocks required books and supplies for courses at Hartnell in addition to reference materials, insignia items, and home and office supplies. Current editions of textbooks may be sold back at the store at any time with a valid student ID card.

Operating hours are:

Monday-Thursday 7:30 a.m.-7:00 p.m.
Friday 7:30 a.m.-5:00 p.m.

The College Store has extended hours for the first two weeks of the fall and spring semesters. During the summer the store has limited hours, which are posted outside the store.

VISITORS TO THE COLLEGE
Parents, the general public, and other interested persons are invited to visit the campus. Visitors should stop at the Office of the Associate Vice President of Student Affairs and Athletics, located in the Classroom and Administration Building, Room CAB-151, for information and directions.

No one is permitted to attend classes unless s/he is a registered student. Exceptions to this rule may be made only in unusual circumstances and only when such visit will not disturb the instructional program. A special Visitor’s Permit is required in such instances.

Permission to enter upon the property of the District, either stated or implied in other policies or practices, is subject to immediate revocation by the Governing Board or by the Superintendent-President of the College.

COMMUNICATIONS
No telephone messages for students will be accepted by the College. Mail or faxes should not be addressed to students in care of the College. No delivery of any nature will be accepted for students.

CAMPUS SECURITY
The Campus Safety Office, located in the Center, assists with reporting on-campus crimes and emergencies, and locating lost articles. On weekdays from 8:00 a.m. to 5:00 p.m. contact security by calling (831) 755-6888. On weekends, after 5:00 p.m. weekdays, or if there is no answer at the office, Campus Safety may be reached by calling 831-757-4302.

When an emergency occurs on campus, call Campus Safety at EXT 6888. An officer will respond and obtain medical assistance as well as other essential insurance information. Any questions regarding student injuries or accidents on campus should be directed to the Office of the Student Affairs at (831) 755-6822 or EXT 6822.
Library and Learning Resource Center

Library and Learning Resource Center

Hours*
Monday-Thursday: 8:00 am-9:00 pm
Friday: 8:00 am-4:00 pm
Saturday: 10:00 am-2:00 pm

* Hours during the summer and intercession vary and are posted at the library’s entrance and on the library’s web site (http://www.hartnell.edu/library/).

The new Hartnell College Library and Learning Resource Center opened in June 2006. The library is located at the corner of Homestead and Central Avenues adjacent the parking garage and across from Central Park. All faculty, staff and currently enrolled students may use the library for research, study, computing, and for personal enrichment. The library is open to the community and many services are available to non-students.

Reference librarians are available during open hours to answer questions, guide students in selection of research tools and assist with formulating search strategies for locating information. Librarians also teach orientations and information literacy/research skills courses in the Information Competency Center.

The library’s collection contains more than 60,000 items. Books are located on the second floor arranged by Library of Congress Classification System, and may be accessed through an online catalog. In addition to books, digital electronic books, periodicals, newspapers, electronic databases, videos, DVDs, CDs, and microforms are available in the library. Students may borrow materials from other libraries by requesting interlibrary loans at Reference Services. Faculty may place materials on reserve at Circulation Services. The library has computers on both floors that provide access to the Internet, electronic databases, other software, and network printers. Both floors also feature convenient self-check stations, express online catalogs, and copy machines.

In addition to the services of a traditional library, the new building has integrated new technology into many areas. A distance learning lab, a Faculty/Staff Resource Center, a Community Room, Audio Visual Services, Computer Equipment Services, and Media Services are all located in the Library and Learning Resource Center. Computer and Media Services provide technical assistance along with many multimedia options including the capability of distributed media viewing.

The library includes a variety of learning environments -- group study rooms for students, including “smart” study rooms, and a large designated silent study room. The library was designed to provide access to all students. Accessibility features include computers with assistive technologies and software applications, and wheelchair accessible public service desks, self-check stations, group study rooms and many study carrels, and study tables.

The Faculty/Staff Resource Center provides computers and other equipment for use in producing instructional materials. An instructional technologist is available to assist faculty and staff in the use of technologies. Audio Visual Services provides and maintains media equipment and presentation technologies in support of classroom teaching. While the college is moving towards building smart classrooms, AV equipment continues to be delivered to classes at faculty’s advance request. Computers with presentation equipment, plasma screens, lap top computers and digital cameras may be checked out to faculty depending on availability.

Special Collections features unique book collections and college archives. The most notable collection is the ornithology and natural history library of O.P. Silliman. Access to Special Collections is by appointment.

OFF-CAMPUS INSTRUCTION

Each semester Hartnell conducts off-campus classes in King City, Soledad, and Greenfield. Additionally, numerous classes are taught each semester at various locations throughout the City of Salinas and the District wherever a sufficient number of persons indicate a desire to enroll.

The King City Education Center in King City program offerings include most academic subjects that lead to an AA Degree. For further information, call 386-7100.

Distance Learning

Hartnell College offers classes to off-campus students on the world-wide-web and Polycom’s video-conferencing equipment for real-time interactive video and audio distant learning courses. Web delivered courses expect the student to have home access to a computer with Internet capabilities. For those students who do not have this access, computers with Internet connectivity are available at satellite campuses at King City, East Campus and Natividad, in addition to the main campus (in the library and the computer classrooms). Polycom delivery will require the student to attend class at a site that has a video-conferencing system installed and operational for that class (please see Hartnell’s Schedule for this information). All distance education courses are academically rigorous, require the direction of and interaction with qualified faculty, and are equivalent to traditionally taught courses.
OTHER CAMPUS PROGRAMS

Self-Paced Classes
Hartnell offers self-paced classes for students who have various schedule needs and the Hartnell College schedules may not meet their scheduling needs. These courses provide the flexibility of enrolling and completing the class work on a schedule that is convenient to the student.

Business Assistance Center
The Business Assistance Center assists businesses and industry to retain and/or expand their businesses and provide management and technical assistance. The office and staff provide business and economic development assistance and referral services. Services include one-on-one professional business counseling, workshops and seminars, special programs designed for business owners and specialized training. For more information call 755-6800.

Foster and Kinship Care Education
Come to FKCE When You…….

- Take care of a relative’s child
- Think you’d like to care for a child in the “system”
- Need to complete mandated state foster care education
- Care for another’s child and want to improve your parenting skills

Hartnell College Foster & Kinship Care Education cares about you. We are widening doors, so to speak, to care even more. We know caregivers like you want to know and there is much you want to know and there is much you need to know.

We offer a variety of no cost trainings and classes to meet your needs. Hartnell FKCE support the difference you make in the lives of children.

Cultural Programs
Hartnell College provides support for a wide range of cultural programs. A variety of performing arts activities are presented to local residents throughout the year.

HARTNELL COLLEGE FOUNDATION

The Hartnell College Foundation is a nonprofit, tax deductible corporation organized by community spirited citizens in 1979 to support and benefit the Hartnell Community College District. The Foundation Board of Directors consists of up to 35 volunteers from business, industry, and community service. The Board is assisted by over 200 volunteers serving on various committees.

Mission Statement
The Hartnell College Foundation will actively support and advise the College in developing its activities, programs and facilities; will cultivate bequests and donations; and will responsibly administer funds, properties, bequests, annuities, and other instruments in the best interest of the College, the District, and the Foundation.

Vision
The Hartnell College Foundation will be a catalyst for change related to support of innovative activities for student access and success.

Initially, the Foundation’s primary focus was raising scholarship funds. Over the years, this broadened. In 1985, Mr. and Mrs. Villeroy Gleason bequeathed their residence in King City to the Foundation. The Foundation held its first capital campaign for the King City Education Center, raising over $600,000 towards that facility which opened in 2001. Over 1,500 students now attend classes in King City and are able to complete their AA degree solely through that facility, if desired.

In 2006 the Hartnell College Foundation launched the college’s first major comprehensive fundraising effort and over $5 million has been raised to date. As part of the campaign, areas of need were identified for support including: agriculture, the library, construction, athletics, the arts and sciences, and scholarships. As a result the new Ag Business and Technology Institute has been established, followed by the Center for Sustainable Construction. An Athletics Master Plan has been completed and the Foundation is working on raising funds for Phase 1 of that plan. With recent changes to Western Stage, the Foundation is now working actively with the Western Stage Theatre Arts Council.

In recent years, the Foundation scholarship endowment has been bolstered by numerous bequests including Eugene and Ercia Harden, Dorcas Davenport Brown, California Rodeo, Inc., Henry J. Willis, Betty Hathaway, Terezina A. Hackney, and Elmer and Dorothy Eade, Stuart F. Dufour (president emeritus), Ruth Kaiser, Kenneth Whalen and Marcus and Vivian Duran among others. The Foundation accepts gifts of cash, gifts in kind, real estate, stock or securities, appreciated art, annuities, trusts, life income trusts, gifts in memoriam, wills and bequests. For more information on Foundation programs and planned giving contact giving@hartnell.edu, the Foundation office at (831) 755-6810 or visit our website at www.hartnell.edu/foundation

HARTNELL’S NAME

WILLIAM EDWARD PETTY HARTNELL was born in 1798 on a country estate in Lancashire, England. He attended Cambridge University and he also studied accounting at the College of Commerce in Bremen, Germany. Upon completion of his studies, Hartnell secured a position with the John Begg Trading Company in Santiago, Chile, and began working as an accountant and trade negotiator. He became fluent in Spanish and was soon negotiating trade agreements along the western coast of South America.

In 1822, Hartnell arrived in California and set about establishing a positive relationship with Governor Pablo Vicente Solá and Padre Mariano Payeras, head of the California Missions. As a result of Hartnell’s experience and diplomatic skills, Governor Solá granted him the right to trade in California and to establish monetary trade agreements with the missions and the presidios. Hartnell’s business ventures thrived and he became well known by the Californios, the large land owners in the province. During this time, he frequented the home of Don José de la Guerra, a highly influential Californio living in Santa Barbara. Don José de la Guerra was regarded as the most wealthy, most cultivated, and most influential man in the province. He and Hartnell became friends and shared many cultural interests. La Casa de la Guerra was a mecca for distinguished visitors from all over the world, and Hartnell often attended fiestas at the de la Guerra home. It was in this setting that he met the lovely María Teresa de la Guerra, daughter of Don José. In 1824, Hartnell converted to Catholicism and, a year later, he married María Teresa. In the week prior to the wedding, a series of parties and dinners was held in Santa Barbara followed by the wedding ceremony at the Santa Barbara Mission. William Edward Petty Hartnell and María Teresa de la Guerra Hartnell then moved to Monterey to oversee their business ventures.

In 1830, Hartnell became a Mexican citizen and received a share in the Rancho de Aisal. On the Rancho, he and María Teresa planted fruit trees, grain, and grapes. They also grazed over 500 head of cattle. In 1832, Don José wrote to his son-in-law, “... turn (your) natural inclination to teach into an asset and become a schoolmaster.” As the Rancho was an ideal setting for a school, Hartnell could combine the pleasures of teaching with those of being a ranchero. Hartnell soon received permission from Governor Figueroa to secure a license to establish a postsecondary school. On May 4, 1834, Governor Figueroa attended a blessing for the new school and made a gift of approximately $150 to support the educational venture.

On January 1, 1834, a huge fiesta formalized the opening of El Colegio de San José at the Aisal Rancho, now re-named “El Patrocinio de San José.” Spanish, mathematics, philosophy, French, English, German, and Latin formed the curriculum. Each student paid a fee of 200 pesos for a year’s study. During the first year, 15 students enrolled and the school became a social center for young people and visiting dignitaries such as Mariano Vallejo, Juan Bautista Alvarado, and Francisco Pacheco. The census of 1836 listed a total of 44 persons living on the Rancho. This included the six children born to William Edward Petty and María Teresa de la Guerra Hartnell.

Information for this article was taken from historical documents provided by the Monterey County Historical Society and the Monterey County Herald, and writings by Dr. Daniel Ispon. The following references were consulted: The Salinas: Upside-Down River by Anne B. Fisher (1977) and The Lives of William Hartnell by Susanna Dakin (1949).

The information above is correct to the best of our knowledge, but we welcome corrections or additions.
NON-DISCRIMINATION AND NON-HARASSMENT POLICY

In the pursuit of academic studies and other college-sponsored activities that promote intellectual growth and personal development, all students should be free of unlawful discrimination by any member of the academic community. (Students disturbed by the acts of another student have recourse through the procedures of the Student Code of Conduct.)

Hartnell College ensures that its programs and activities, including employment, are available to all qualified persons without regard to race, color, religion, sex, sexual orientation, age, disability, marital status, ancestry, national origin, or veteran status.

If a student feels he/she has suffered unlawful discrimination, harassment, or retaliation by an instructor, an administrator, or a member of the classified staff, he/she may obtain written instructions for the filing of a grievance from the office of the Associate Vice President of Student Affairs and Athletics. The complaint must be initiated within one year of occurrence.

College policies regarding discrimination, harassment and retaliation are in compliance with applicable federal and state laws, and the California Education Code.

En el seguimiento de estudios académicos y otros colegios que patrocinan actividades que promueven el desarrollo intelectual y personal, todos los estudiantes deberán de ser libres de discriminación ilegal por parte de cualquier miembro de la comunidad académica. (Estudiantes que sean molestados por los actos de otros estudiantes, tienen que recurrir al código de conducta estudiantil.)

El colegio Hartnell asegura que sus programas y actividades, incluyendo empleo, están disponibles a todas las personas calificadas sin tomar en cuenta su raza, color, religión, sexo, orientación sexual, edad, incapacidad, estado civil, ascendencia, origen nacional o estado veterano.

Si el estudiante siente que ha sufrido una discriminación, acoso o represalia de algún maestro, administrador, empleado de oficina, Puede obtener una forma en la oficina del Vise-presidente de ayuda estudiantil para presentar su queja. La queja se necesita precintar dentro del año en el que ocurrió el incidente.

Las pólizas de colegio acerca de discriminación, acoso y represalia están de acuerdo con las leyes federales y estatales con los códigos de educación del estado de California.

SEXUAL HARASSMENT POLICY

It is the policy of the Governing Board of the Hartnell Community College District to provide an educational and business environment free of unwelcome sexual advances, requests for sexual favors, and other verbal, visual, or physical conduct or communications constituting sexual harassment, as defined by Education Code Section 212.5 and otherwise prohibited by state and federal law.

It is unlawful and a violation of this policy for anyone who is authorized to recommend or make personnel or educational decisions affecting an employee or student or who is otherwise authorized to transact business or perform other acts or services on behalf of the District to engage in sexual harassment.

Allegations of sexual harassment shall be thoroughly investigated in accordance with the District’s sexual harassment/discrimination complaint procedures.

It is a violation of this policy to retaliate against a sexual harassment complainant or witness. The initiation of a complaint or participation as a witness in a sexual harassment investigation shall not affect the complainant’s or witness’s future business dealings with the District; his or her employment, compensation, or work assignments; his or her grades, class standing, or other matters pertaining to his or her status, as an employee or student, in any District program.

A complaint and the results of the investigation shall be confidential to the extent maintenance of confidentiality is consistent with a thorough investigation and appropriate disposition of the matter.

Rules and procedures for reporting charges of sexual harassment and pursuing available remedies may be obtained from the Director of Human Resources and Equal Employment Opportunity or any employee in the Office of Human Resources and Equal Employment Opportunity.
Residence Requirements for Admissions

California Residents
Any person enrolling in credit or non-credit courses is subject to residency requirements as outlined by the California Education Code.

Resident: A resident student is one who has been a legal resident in California for more than one year immediately preceding the beginning of the semester in which the student plans to enroll, and who demonstrates the intent to remain a permanent California resident.

The right of a student to attend any public community college in California as a resident requires that he/she:

1. be a citizen of the United States, or possess or be an applicant for a permanent-resident, amnesty of another visa type that does not preclude establishing domicile in the United States and meeting certain requirements.

2. be at least 17 years of age and have lived in California one year and one day prior to the residency determination date. (Note: A student, who has not been a resident of California for more than one year and who is the dependent [for income tax purposes] child of a California resident who has been a resident since the above-noted residence determination date, is entitled to resident classification. Submit documentation with application.)

3. have parents or a guardian who have resided in California for one year and one day, if he/she is younger than 18 years of age.

4. present evidence showing the student’s or the student’s parents’ (if under 19) intent to make California one’s permanent home.

5. manifest residency intent if the student is 19 years of age or over by maintaining a home in California continuously for the last two years, unless there is contrary evidence of intent.

6. manifest residency intent if the student is under 19 years of age, by both students and his/her parents maintaining a home in California continuously for the last two years, unless there is contrary evidence of intent.

If manifest intent cannot be shown within #5 and #6 above, the student is required to provide evidence of intent to make California his or her permanent home. Objective manifestations of this intent include, but are not limited to:

1. payment of California state income tax as a resident.

2. registering to vote and voting in California.

3. possessing California driver’s license or California ID.

4. maintaining a permanent military address or home of record in California while in the armed services.

5. possessing California motor vehicle license plates.

6. possessing California driver’s license or California ID.

7. maintaining a permanent military address or home of record in California while in the armed services.

8. being the petitioner for a divorce in California.

9. documentation of employment (check stub, letter from employer).

Military personnel on active duty in California, their spouses and dependent children qualify as immediate residents (Submit military documentation with application). Military dependents are allowed to attend Hartnell without paying non-resident tuition for one year after being assigned to California. After the one-year period, military dependents must provide documentation that indicates their intent to maintain California as their permanent home.

Students with visas will be evaluated for residency based on the type of visa, issue date, length of stay in California, and intent to maintain California as their permanent home.

A student who cannot qualify as a resident of California will be classified as a non-resident student. Non-resident fees will be applied.

Definition: “Manifested the intent” means having supportive documentation indicating the intention of making California one’s legal state of residence. You may be asked to submit this documentation to verify California residency. For further information, contact the Admissions and Records Office at (831) 755-6711.

Per section 54026, California Administrative Code, Title 5, the burden is on the student to demonstrate clearly both physical presence and intent to establish California residency.
California Residency Status Change
Non-resident students do not automatically become residents by being in California for one year. A student seeking reclassification from non-resident to resident status must complete and file a new Application for Admission in order to change their status. Residency documents along with the updated Application for Admission must be submitted to Admissions & Records prior to registering for the next semester. Out-of-state residency will not be changed automatically.

Non-Residents
A non-resident student is one who has not had a legal residency in California for more than one year immediately preceding the beginning of the semester. Non-resident students are required to pay non-resident tuition in addition to enrollment fees. Exemption to non-resident tuition exists when documentation is presented for any of the following:

- Attended a California high school (or high school equivalent) for a minimum of three years and earned a California High School diploma or equivalent.
- Full-time credentialed employee of a California public school enrolling in college for purposes of fulfilling credential-related requirements.
- Seasonal agricultural worker for at least a total of two months of each of the past two years (or child of a seasonal agricultural worker).

INTERNATIONAL STUDENTS

F-1 Visa Status
It is the policy of Hartnell College to provide international student advisement to assist international students with admission, enrollment, matriculation and other support services. Hartnell College recognizes that a program for international students makes a significant contribution to the education of students at Hartnell and to the promotion of international understanding in the District and throughout the world.

Admission
An international student designee is available to assist with the school admission procedures and the required documentation for the student F-1 visa. Admission and I-20 requirements include:
1. completed International Student Application form.
2. original high school/college transcript(s), including an English translation and explanation of the grading system.
3. original score from the Test of English as a Foreign Language (TOEFL). Hartnell requires a score of 460 or higher on the paper-based test, 140 or higher on the computer-based test, or 48 or higher on the Internet-based test.

4. a notarized financial statement and bank statement from the sponsor verifying financial solvency. The estimated expense for a full academic year is $13,000. The complete application packet must be on file in the International Student Office by:
   - July 15 Fall Semester
   - Nov. 15 Spring Semester
   - April 15 Summer Session

Transfer Students
An international student who is accepted by another collegiate institution with F-1 Student Status must attend that institution and successfully complete 12 units with a ‘C’ average or better before being considered for admission to Hartnell. The complete application packet including a copy of the student’s I-20 and transfer form must be on file by:
   - July 15 Fall Semester
   - Nov. 15 Spring Semester
   - April 15 Summer Session

Hartnell international students must attend this institution and successfully complete 12 units with a ‘C’ average or better before being released and transferred to another U.S. collegiate institution.

Hartnell international students are responsible for any pending financial obligations with the Cashiers Office prior to submitting the transfer request form to Admissions personnel.

English Assessment Test
All international students will be required to take a diagnostic test of English proficiency upon their arrival at Hartnell College. Based on the results of this test, students will be counseled and may be required to enroll in as many as 9.0 units of English consisting of grammar, composition, conversation, and/or vocabulary/spelling.

F-1 Visa Requirement
International students must enroll in a minimum of 12 units by the end of each fall and spring semester. Failure to comply will result in dismissal.

Maximum Enrollment
An international student is expected to complete a program in the most expeditious manner possible, generally in four or five semesters. The maximum enrollment permitted is 6 semesters.

Health Insurance
All Hartnell College international students and their accompanying dependents are required to have health insurance coverage. Students must show proof of health insurance coverage by the end of the first week of each fall and spring semester.

Tuition & Fees
International students shall pay non-resident tuition set by the Board of Trustees. Tuition and fees are subject to change. Refer to the semester class schedule for current fees. Full payment is due by the end of the second week of each semester.

Academic Dismissal
An international student who drops below full-time enrollment, 12 units, or fails to provide proof of health insurance is subject to expulsion from Hartnell.

Educational Plan
All international students must meet with a counselor to create an educational plan before enrolling in their second semester. An educational plan is a plan of coursework needed to meet your goal. Once the educational plan has been completed, no changes will be allowed without prior approval from the international student designee. A copy of the educational plan must be on file with admissions prior to registering for classes their second semester.

Housing
Hartnell College does not have residential facilities on campus. The international student designee will assist students in securing accommodations, but the College is not responsible for arranging housing.

Guest Students
Hartnell international students who are accepted by another collegiate institution must enroll in a minimum of 12 units concurrently. A minimum of 9.0 units must be taken at Hartnell College.

Distance Learning
International students may take online courses; however, a minimum of 9.0 units must be taken at a Hartnell College campus, in a regular classroom setting.

Employment
After one semester of successful study, international students may be permitted to work part-time on campus if there is urgent financial need. Off-campus employment is subject to the rules of the Immigration and Naturalization Service.

Student Responsibility
International students must be familiar with the Immigration and Naturalization Service regulations, as well as Hartnell’s regulations on student conduct and enrollment, and comply with those regulations. For more information, call or stop by the Admission & Records Office, (831) 755-6829. Mon-Fri 2:00 p.m. – 5:00 p.m.
intlstud@hartnell.edu
Visit our website:
www.hartnell.edu/students/international
CONCURRENT ENROLLMENT

Procedures for High School Students

Students whose age or class level is equal to grades 9-12 may attend Hartnell College as either a special part-time student, a special full-time student, or a special summer session student for advanced scholastic, vocational, or physical education courses in accordance with the following procedures. All admitted students must meet STAAR* placement test (see Student Services) requirements if enrolling in an English/ESL or Math. Course prerequisites must be met prior to registering.

K-12 students may enroll in up to 9.0 units in the Fall and Spring Semester, and up to 6.0 units in the Summer Session.

I. Special Part-Time Students

1. Enrolled in a public or private high school must meet each of the following criteria:
   A. Written parental or guardian consent
   B. Written school principal or designee recommendation and consent
   C. Skill level assessment through Hartnell College STAAR* placement assessment, if applicable
   D. Written approval of a Hartnell College counselor
   E. Written approval of Hartnell College Superintendent/President

2. Whose age or class level is equal to grades 9-12 and is not enrolled in school must meet each of the following criteria:
   A. Written parental or guardian consent
   B. Verification of non-enrollment in high school from school principal or designee
   C. Skill level assessment through Hartnell College STAAR* placement assessment, if applicable
   D. Written approval of Hartnell College Associate Vice President of Student Affairs
   E. Written approval of Hartnell College Superintendent/President

II. Special Full-Time Students

1. Enrolled in a public or private high school must meet each of the following criteria:
   A. Written parental or guardian consent
   B. Written school principal or designee recommendation and consent
   C. Written approval of the governing board of the high school district in which the student is enrolled
   D. Skill level assessment through Hartnell College STAAR* placement assessment, if applicable
   E. Written approval of Hartnell College Associate Vice President of Student Affairs

2. Whose age or class level is equal to grades 9-12 and is not enrolled in school must meet each of the following criteria:
   A. Written parental or guardian consent
   B. Verification of non-enrollment in high school from school principal or designee

Grades K-8

Non-high school students enrolled in K-8 districts may attend Hartnell College for advanced scholastic courses only as special part-time students. K-8 students cannot enroll in physical education, dance or vocational courses. For admission, students must meet each of the following criteria:

A. Such courses are not being offered by the local school districts and/or other educational institutions available to the student
B. Written parental or guardian consent
C. Written school principal or designee recommendation and consent
D. Skill level assessment through Hartnell College STAAR* placement assessment, if applicable
E. Written approval from the Associate Vice-President of Student Affairs

Note: In addition, concurrent enrollment students completing college courses will receive credit on their Hartnell College transcripts. A copy of your Hartnell College transcript is NOT automatically sent to your K-12 school. Students must request for official transcripts in writing to the Admissions & Records Office at Hartnell College.

Confidentiality Statement

Under Section 49061 of the Education Code, parents of community college students do not have a right of access to their children’s student records, regardless of whether the student is under the age of 18. Also, under federal law Section 1232g of Title 20 of the United States Code), there is a general right of parental access to student records, but not for college students, regardless of age.

TRANSFER TRANSCRIPTS

Hartnell College students pursuing an Associate Degree or Certificate or Veteran’s Benefits may request evaluation of previous college or university credit after the completion of 6.0 units at Hartnell. It is the students responsibility to 1) request official transcripts be mailed directly to the Admissions Office and (2) submit a Transfer Credit Evaluation Petition. The previous college or university institution must have been accredited at the time of attendance. The student may consult the Accredited Institutions of Post Secondary Education list at the Admissions Office. Credit may also be allowed for college-level USAFI courses and for formal courses taken at military service schools if such credit is recommended in the American Council on Education Guide.

Students who have completed college or university level courses outside the United States and are requesting credit must have those transcripts evaluated by a Foreign Credit Evaluation service. A list of these Evaluation Services is available in the Admissions & Records Office or on the web at www.hartnell.edu/admissions/foreign_transcript_evaluation.html.

Official transcripts should be mailed directly from the college or university to Hartnell College ATTN: Admissions and Records, 411 Central Avenue, Salinas, CA 93901. Transcripts may be hand-delivered to Admissions & Records and will be accepted as official if the envelope seal on the college envelope has not been broken.

All transcripts submitted become the permanent property of Hartnell College and copies of these transcripts cannot be forwarded elsewhere or released to the student. College personnel with the need to know will have access to official transcripts. These transfer transcripts can be used by authorized Hartnell College personnel only. Transfer coursework that has been evaluated and approved by Hartnell College become a permanent part of the student’s overall Hartnell academic record and cannot be removed.

Transfer Transcripts for Prerequisites

Students transferring from other colleges or universities and enrolling in courses with prerequisites must document the successful completion of the prerequisites with a signed Prerequisite Clearance form by a Hartnell College counselor and a copy of the other college university transcript prior to registration.

IMPOUND OF STUDENT RECORDS

Students who fail to comply with College rules or regulations, return property owned by the College, pay debts owed to the College, or pay for damaged College property may not be allowed to register, receive degrees or certificates, have transcripts forwarded, have transfer credit evaluated, have GE Certifications forwarded, enrollment verifications, and/or receive other services related to student records. Once the student has cleared the obligation with the College, the impoundment of records will be removed.
COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)
The College Entrance Examination Board (CEEB) has established the College Level Examination Program (CLEP) to enable those who have reached the college level of education outside the classroom to demonstrate their achievement and to use test results for college credit and/or placement. Students planning to receive an Associate Degree from Hartnell College should submit official test scores and request evaluation of credit from the Admissions & Records Office. For the general examinations, elective credit will be given for each area passed with a score of 50 or better. For the subject examinations, elective credit will be given for each area passed with scale score of 50 or better. Minimum scores for Hartnell course equivalents, where established, may be obtained from Admissions & Records. Maximum units that may be granted via CLEP are 30. Credit will be awarded toward the Associate Degree, but grades and grade points will not be assigned. Units granted will not count toward the residence requirements of the College.

ADVANCED PLACEMENT (CEEB)
Hartnell College participates in the Advanced Placement Program of the College Entrance Examination Board to assist academically talented students. Students planning to receive an Associate Degree from Hartnell College or transfer to a four-year college or university should submit the advanced placement examination test scores, from the CEEB, Educational Testing Service, and request an evaluation of transfer credit from the Admissions & Records Office upon completion of 6.0 units at Hartnell. Three or more units of credit may be awarded for each examination on which a minimum score of 3 is received. This is for Hartnell graduation purposes and can be certified for GE requirements for CSU's and UC's upon request. Specific course equivalents may be obtained from a Hartnell Counselor or from Admissions & Records. Credit awarded will be annotated as a Credit grade (CR), and will be shown as units completed. No grade points will be assigned. Units granted will not count toward the graduation residency requirements of the College.

<table>
<thead>
<tr>
<th>Subject Exam</th>
<th>Minimum Score</th>
<th>Hartnell Equivalent</th>
<th>Hartnell Units Awarded</th>
<th>Associate Degree Area</th>
<th>CSU GE Area</th>
<th>CSU Units Awarded</th>
<th>IGETC Area</th>
<th>IGETC Units Awarded</th>
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<tbody>
<tr>
<td>Art - History of Art</td>
<td>3</td>
<td>ART 1A</td>
<td>3.0</td>
<td>Humanities</td>
<td>C1 or C2</td>
<td>3.0</td>
<td>3</td>
<td>3.0</td>
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<tr>
<td>Art - Studio Art</td>
<td>3</td>
<td>None - Elective only</td>
<td>3.0</td>
<td>Humanities</td>
<td>n/a</td>
<td>3.0 Elective only</td>
<td>n/a</td>
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<td>Biology</td>
<td>3</td>
<td>BIO 10 + 2 Elective</td>
<td>6.0</td>
<td>Nat. Sci.</td>
<td>B2 &amp; B3</td>
<td>4.0 GE + 2 Electives</td>
<td>5-PHYLAB</td>
<td>4.0</td>
</tr>
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<td>Chemistry</td>
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<td>CHEM 1A + Elective</td>
<td>6.0</td>
<td>Nat. Sci.</td>
<td>B1 &amp; B3</td>
<td>4.0 GE + 2 Electives</td>
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<td>4.0</td>
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<td>Chinese Language and Culture</td>
<td>3</td>
<td>None - Elective only</td>
<td>6.0</td>
<td>Humanities</td>
<td>C2</td>
<td>3.0 GE + 3 Electives</td>
<td>LOTE &amp; 3</td>
<td>3.0</td>
</tr>
<tr>
<td>Computer Science A</td>
<td>3</td>
<td>CSS 2A</td>
<td>4.0</td>
<td>Lang. &amp; Rat.</td>
<td>n/a</td>
<td>3.0 Electives</td>
<td>n/a</td>
<td>0.0</td>
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<td>Computer Science AB</td>
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<td>CSS 2A + 2 Elective</td>
<td>6.0</td>
<td>Lang. &amp; Rat.</td>
<td>n/a</td>
<td>6.0 Electives</td>
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<td>Economics - Macroeconomics</td>
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<td>ECO 5</td>
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<td>Soc. &amp; Beh.</td>
<td>D2</td>
<td>3.0</td>
<td>4</td>
<td>3.0</td>
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<tr>
<td>Economics - Microeconomics</td>
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<td>ECO 1</td>
<td>3.0</td>
<td>Soc. &amp; Beh.</td>
<td>D2</td>
<td>3.0</td>
<td>4</td>
<td>3.0</td>
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<td>English - Language &amp; Composition</td>
<td>3</td>
<td>ENG 1A + 3 Elective</td>
<td>6.0</td>
<td>Lang. &amp; Rat.</td>
<td>A2</td>
<td>3.0 GE + 3 Electives</td>
<td>Grp A</td>
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</tr>
<tr>
<td>English - Literature &amp; Composition</td>
<td>3</td>
<td>ENG 1A &amp; ENG 1B</td>
<td>6.0</td>
<td>Humanities</td>
<td>A2 &amp; C2</td>
<td>6.0</td>
<td>Grp A or 3</td>
<td>3.0</td>
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<tr>
<td>Environmental Science</td>
<td>3</td>
<td>BIO 48 + BIO 48L</td>
<td>4.0</td>
<td>Nat. Sci.</td>
<td>B1 &amp; B3</td>
<td>4.0</td>
<td>5-PHYLAB</td>
<td>3.0</td>
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<tr>
<td>French - French Language</td>
<td>3</td>
<td>FRN 1 + 1 Elective</td>
<td>6.0</td>
<td>Humanities</td>
<td>C2</td>
<td>3.0 GE + 3 Electives</td>
<td>LOTE &amp; 3</td>
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<tr>
<td>French - French Literature</td>
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<td>None - 6 Electives only</td>
<td>6.0</td>
<td>Humanities</td>
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<tr>
<td>German Language</td>
<td>3</td>
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<td>6.0</td>
<td>Humanities</td>
<td>C2</td>
<td>3.0 GE + 3 Electives</td>
<td>LOTE &amp; 3</td>
<td>3.0</td>
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<tr>
<td>Government &amp; Politics: Comparative</td>
<td>3</td>
<td>POL 2</td>
<td>3.0</td>
<td>Soc. &amp; Beh.</td>
<td>D8</td>
<td>3.0</td>
<td>4</td>
<td>3.0</td>
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<tr>
<td>History - European History</td>
<td>3</td>
<td>HIS 4A + 3 Electives</td>
<td>6.0</td>
<td>Soc. &amp; Beh.</td>
<td>C2 or D6</td>
<td>3.0 GE + 3 Electives</td>
<td>3 or 4</td>
<td>3.0</td>
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<tr>
<td>History - United States History</td>
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<td>HIS 17A + 3 Electives</td>
<td>6.0</td>
<td>Soc. &amp; Beh.</td>
<td>C2 or D6 + US 1</td>
<td>3.0 GE + 3 Electives</td>
<td>3 or 4</td>
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<tr>
<td>History - World History</td>
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<td>HIS 5A + 3 Electives</td>
<td>6.0</td>
<td>Soc. &amp; Beh.</td>
<td>C2 or D6</td>
<td>3.0 GE + 3 Electives</td>
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<td>3.0</td>
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<tr>
<td>Human Geography</td>
<td>3</td>
<td>None- Elective Only</td>
<td>3.0</td>
<td>Soc. &amp; Beh.</td>
<td>D5</td>
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<td>4</td>
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<td>Italian Language and Culture</td>
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<td>None- Elective Only</td>
<td>6.0</td>
<td>Humanities</td>
<td>C2</td>
<td>3.0 GE + 3 Electives</td>
<td>LOTE &amp; 3</td>
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<td>Japanese Language and Culture</td>
<td>3</td>
<td>JPN 10 + 1 Elective</td>
<td>6.0</td>
<td>Humanities</td>
<td>C2</td>
<td>3.0 GE + 3 Electives</td>
<td>LOTE &amp; 3</td>
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<tr>
<td>Latin - Latin Literature</td>
<td>3</td>
<td>None - Elective Only</td>
<td>6.0</td>
<td>Humanities</td>
<td>n/a</td>
<td>6.0 Electives</td>
<td>LOTE &amp; 3</td>
<td>3.0</td>
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<tr>
<td>Latin - Vergil</td>
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<td>None- Elective Only</td>
<td>3.0</td>
<td>Humanities</td>
<td>C2</td>
<td>3.0</td>
<td>LOTE &amp; 3</td>
<td>3.0</td>
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<tr>
<td>Math Statistics</td>
<td>3</td>
<td>MAT 13</td>
<td>5.0</td>
<td>Lang. &amp; Rat.</td>
<td>B4</td>
<td>3.0</td>
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<tr>
<td>Math (Calculus AB)</td>
<td>3</td>
<td>MAT 3A</td>
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<td>Lang. &amp; Rat.</td>
<td>B4</td>
<td>3.0</td>
<td>2</td>
<td>3.0</td>
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<tr>
<td>Math (Calculus BC)</td>
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<td>MAT 3A &amp; MAT 3B</td>
<td>4.0</td>
<td>Lang. &amp; Rat.</td>
<td>n/a</td>
<td>6.0 Electives</td>
<td>n/a</td>
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<tr>
<td>Music - Theory</td>
<td>3</td>
<td>MUS 50A + 3 Electives</td>
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<td>C1*</td>
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<tr>
<td>Physics B</td>
<td>3</td>
<td>PHY 2A + 2 Electives</td>
<td>6.0</td>
<td>Nat. Sci.</td>
<td>B1 &amp; B3</td>
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<td>5-PHYLAB</td>
<td>4.0</td>
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<td>Physics C (Mechanics)</td>
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<td>PHY 4A</td>
<td>4.0</td>
<td>Nat. Sci.</td>
<td>B1 &amp; B3</td>
<td>4.0</td>
<td>5-PHYLAB</td>
<td>3.0</td>
</tr>
<tr>
<td>Physics C (Electricity &amp; Magnetism)</td>
<td>3</td>
<td>PHY 4B</td>
<td>4.0</td>
<td>Nat. Sci.</td>
<td>B1 &amp; B3</td>
<td>4.0</td>
<td>5-PHYLAB</td>
<td>3.0</td>
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<td>Psychology</td>
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<td>PSY 2</td>
<td>3.0</td>
<td>Soc. &amp; Beh.</td>
<td>D9</td>
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<td>4</td>
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<tr>
<td>Spanish - Spanish Language</td>
<td>3</td>
<td>SPA 1S or 1X + 1 Elective</td>
<td>6.0</td>
<td>Lang. &amp; Rat. or</td>
<td>C2</td>
<td>3.0 GE + 3 Electives</td>
<td>LOTE &amp; 3</td>
<td>3.0</td>
</tr>
<tr>
<td>Spanish - Spanish Literature</td>
<td>3</td>
<td>None - Elective Only</td>
<td>6.0</td>
<td>Humanities</td>
<td>C2</td>
<td>3.0 GE + 3 Electives</td>
<td>LOTE &amp; 3</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Note: The Term Elective(s) means units
* If taken prior to Fall 2009. No GE given after Summer 2008. CSU will grant 6.0 elective units.
* If a student passes more than one AP exam in Calculus or more than on AP exam in computer science, only one examination in each area may be applied to CSU baccalaureate.
* If a student passes more than on AP exam in physics, only six units of credit may be applied to the CSU baccalaureate, and only fours units of units may be applied to certification for CSU-GE-Breadth

Upon student submitting official AP Score Report to Admissions and Records, college credit will be credited to the student’s record. For more information, see a counselor.

Hartnell College Catalog – 2009/10
SERVICE MEMBER’S OPPORTUNITY COLLEGE

Hartnell College subscribes to the Service Member’s Opportunity College (SOC) program of the American Association of Community and Junior Colleges. Upon completion of six semester units at Hartnell, the student may submit military educational records and official college transcripts, and request formal evaluation by the Admissions Office. As an SOC college, Hartnell College will:

1. accept for transfer credit all lower division work taken by a student at a regionally accredited institution.
2. accept for credit courses completed by military personnel in accordance with the USAFI catalog.
3. grant credit under the Advanced Placement Program of the College Entrance Examination Board (CEEB) and the College Level Examination Program (CLEP).
4. grant credit for military schools in accordance with the recommendations provided in the current edition of "A Guide to the Evaluation of Educational Experiences in the Armed Services", published by the Commission on Accreditation of Service Experiences of the American Council on Education.
5. grant credit in accordance with the United States Army Service Member’s Opportunity College Associate Degree Programs Handbook (SOCAD).

NON-TRADITIONAL CREDIT
(Military Courses, MOS, DANTES, etc.)

Credit for military school experience and MOS will be limited to a maximum of 30 semester units commensurate with graduation requirements and course offerings. Students wishing to use military credit may request evaluation of their military credit after the completion of 6.0 units at Hartnell. It is the students responsibility to 1) request official transcripts be mailed directly to the Admissions Office (2) submit a copy of your DD214, and (3) submit a Transfer Credit Evaluation Petition. Here Websites to request transcripts from the military branches:
The Army/ (AART5S): http://aarts.army.mil
The Coast Guard Institute:
www.uscg.mil/hq/cgl/Resources/Institute_Forms/CG_form_1564.html

Upon satisfactory completion of all sections of the Certified Professional Secretary (CPS) examination, and a verification of the CPS rating, a maximum of 25 specified Business discipline units may be granted as follows: BUS1A, 4 units; BUS18, 3 units; BUS32, 3 units; BUS71, 4 units; BUS75, 4 units; BUS152, 4 units; BUS194, 30 units.

Upon satisfactory completion of one or more segments of the Automotive Service Excellence examinations, equivalent credit may be awarded. Maximum number of units awarded for non-traditional credit is 30.0 units. Contact the Associate Vice-President for further information.

For credit to be awarded, the student must be enrolled at Hartnell, have completed a minimum of 6.0 units, and must submit a Transfer Credit Evaluation Petition to Admissions & Records.

REGISTRATION

All students MUST have a registration appointment to register. Continuing students are given the first opportunity to register each semester, and their registration appointment is based on units completed through the previous semester. Students may be notified by any one of these methods: by U.S. Mail, by email, or by phone approximately 2 – 3 weeks prior to registration starting.

Continuing students may register using PAWS on-line registration (www.hartnell.edu), ASAP* Phone Registration (831) 755-6795, or Mail-In Registration. Any student who misses their registration appointment time can register any day after until the Saturday before the semester begins, or for short-courses up until the day before it begins.

New & Returning students are issued a registration appointment date at the time of submission of their Application for Admission. New & Returning students are given appointment dates after continuing students have had an opportunity to register. New & Returning students may register using PAWS on-line registration (www.hartnell.edu), ASAP Phone Registration (831) 755-6795, or Mail-In Registration. Students who miss their registration appointment time can register any day after until the Saturday at noon before the semester begins, or for short-courses up until the day before it begins.

 Concurrent Enrollment Students (K-12) are eligible to register after continuing and new and returning students. The completed Concurrent Enrollment packet must be submitted prior to or at the time of registration. Registration for K-12 students is on a first-come, first serve basis. For specific dates, please consult the current class schedule.

Distant Registration Services
Personal Access Web Service (PAWS)

PAWS, an online service, is available to all Hartnell students. Students can access their student information online, from home, office, or on campus, by visiting the college web site at www.hartnell.edu and click on PAWS for Students. Free computer access is also available in the PAWS web room located in Admissions & Records or in the College Library. Follow the prompts for viewing the following information:

• View the Schedule of Classes for the current semester
• Register/Add/ Drop Classes
• Obtain and print your grades from previous semesters
• Obtain and print a copy of your unofficial transcript
• Obtain and print our STAAAR* Assessment results
• Obtain and print a copy of your current class schedule
• Update your home address, phone number and email address

Admissions Services Available by Phone (ASAP*)

ASAP, telephone service, is available to all Hartnell students. Students can call (831) 755-6755 from home, office, or on campus. Follow the prompts for the following services:

• Register/Add/ Drop Classes
• Obtain grades from previous semesters

Steps to Enroll at Hartnell College

STEP 1:

a) Complete and submit an Application for Admission. Apply on-line at:
www.hartnell.edu or complete the Application available in the schedule of classes or from Admission’s office, then mail, fax, or bring your application in-person to Admissions & Records.

b) If needed, apply NOW for Financial Aid. Apply online at www.fafsa.ed.gov or for tuition only complete the BOGFW application in the schedule of classes and mail it in to the Financial Aid Office. For more information, call the Financial Aid Office at (831) 755-6806.

c) Submit other college/university official transcripts to Admissions & Records at least two weeks before registering. Check for prerequisites for all your classes. See a counselor for a Prerequisite Clearance Form. Prerequisite Clearance Forms may take two working days to process, so plan ahead!

STEP 2:

Submit other college/university official transcripts to Admissions & Records at least two weeks before registering. Check for prerequisites for all your classes. See a counselor for a Prerequisite Clearance Form. Prerequisite Clearance Forms may take two working days to process, so plan ahead!

STEP 3: If NOT enrolling in English/ESL or Math, proceed to 3B.

a) If enrolling in an English/ESL course OR Math course. Make an appointment AND complete the STAAAR* placement assessment. Call (831) 755-6054 for an appointment as early as possible.

If enrolling in less than 6.0 units you may proceed to Step 4 or 5.

b) Register for Counseling 21: Orientation to College. See the Counseling course offerings section for dates and times. This is a requirement for students enrolling in 6.0 or more units.

STEP 4:

All students should schedule an appointment to meet with a counselor to discuss academic goals, semester schedule, and develop an Educational Plan. Call (831) 755-6820 to schedule an appointment. Bring copies of official transcripts from high school and/or colleges attended.

STEP 5:

Register using the WEB at www.hartnell.edu and click PAWS for Students or register using ASAP* Telephone Registration at (831) 755-6755. Classes fill quickly so register as early as possible.

STEP 6:

Pay all registration fees at the Cashiers Office before the deadline established in each semester’s schedule of classes to avoid any holds placed on your record.

STEP 7:

Obtain or update your Student ID Card. Present your receipt of payment to the ASHC Office HCC-101.

STEP 8:

Follow up with your counselor and check your eligibility for Special Student Services Programs. Call (831) 755-6820 early in the semester to check on your current progress and/or to develop a comprehensive educational plan with your goal in mind.

Hartnell College Catalog – 2009/10
STAAR* Placement Assessment Requirements

Before you can register, you must meet assessment requirements as stated in the Schedule of Classes. STAAR* assessment sessions are scheduled daily throughout the registration period. To find out more about assessment requirements or to make an appointment, call the STAAR* Assessment Center at 759-6054.

Schedule of Classes

Prior to the beginning of each semester, the College publishes a schedule of classes indicating courses to be offered, their prerequisites, the time the class meets, the instructor, and the room assignment. Registration information and other important instructions are also included in the publication. Schedules are mailed to district residents. Additional copies of the schedule are available in the Admissions & Records Office. In addition to the schedule of classes, students may also access the schedule of classes on the Hartnell web site at www.hartnell.edu. Students can use PAWS for Students (Schedule of Classes) to see active enrollments in classes. Any change such as room changes, instructor changes, time changes to course sections in the schedule of classes are updated immediately in PAWS.

Enrollment in Courses

During the registration process, students will be checked to ensure that assessments and course prerequisites have been met. While the College will make every effort to assist students in planning their programs of study, the final responsibility for the selection of proper classes rests with the student. Students must attend the first class meeting of each course or they may be dropped and will be charged for all enrollment fees associated with the section.

Schedule Changes

Students have the opportunity to add and drop classes during a specified period at the beginning of each semester according to the number of weeks of the semester or session. Admissions & Records publishes these dates each semester or session in the current class schedule.

MANDATORY FEES

Enrollment Fees

ALL California residents will be charged $20 per unit of enrollment per semester. Please note that enrollment fees are determined by the California Legislature for all community colleges, and are subject to change at any time. Should the California Legislature approve a fee increase for the 2009-2010 academic year, all students will have their enrollment fees adjusted accordingly. Financial Aid is available to those who qualify. See the Financial Aid section for more information. These fees must be paid by the Friday of the second week of each semester. Fees not paid will result in a “HOLD” being placed on the student’s academic record. See Impound of Student Records for more information.

Non-Resident Tuition

Non-resident tuition is charged to all students who are not residents of California. This includes residents of other states and foreign students. Non-Resident Tuition for the 2009-2010 academic year has been set at $193 per unit. Enrollment fees, as indicated previously, are also required for all non-resident and foreign students for a total of $213 per unit. These fees must be paid by the Friday of the second week of each semester. Fees not paid will result in a “HOLD” being placed on the student’s academic record. See Impound of Student Records for more information.

To determine whether or not you are a non-resident, refer to the Admissions Residency Requirements for Admissions section of this catalog. Further information concerning tuition and special circumstances for determining California residency is available at the Admissions & Records Office.

Instructional Materials Fees

Students are required to provide their own instructional and other materials for a credit or non-credit course if those materials are of continuing value to the student outside the classroom and if such materials are not solely or exclusively available from the district.

In certain cases a course materials fee is charged. This fee covers materials that are required for health and safety reasons or material provided in lieu of other generally available but more expensive materials which would otherwise be required. Classes for which a materials fee is charged are specifically designated in the printed schedule of classes. A master list of approved course materials fees is maintained in the appropriate discipline’s administrative office.

Student Services Activities Fee

The Student Services/Activities Fee is a student fee and costs $4 (subject to change) per semester for all students and is charged at all locations. This fee will fund activities and services for students for the entire Hartnell College student body. Part of this fee supports the ASHC Senate (student senate), student clubs, and governance activities. Student identification is required to check out books at Hartnell’s Library, for services of Admissions and Records, and for the use of math and reading labs. Other services/benefits for cardholders are: ASHC scholarships, student handbooks, health and educational workshops, recognition awards, cultural workshops and events and merchant discounts (movie tickets, Hartnell home sporting events, Western Stage performances, Monterey Bay Aquarium, etc.)

A $4 check or money order for the Student Services/Activities Fee should accompany your registration payment if using ASAP* Telephone registration or Mail-in or PAWS registration or at the time of In-Person registration. Senior citizens and financial aid recipients will be charged $1.00 for the Student Services/Activities Fee. This fee will be refunded ONLY if the student withdraws from Hartnell College (see refund policy for deadlines) and/or requests a refund prior to the issuance of the student I.D. card. Students may also apply for a fee waiver prior to registering for classes and/or prior to paying their fees. Refund and Fee Waiver request forms are available at the Student Activity Office and at the Cashier’s windows.

Computer Printing Fees

Hartnell College charges students a fee for printing in selected areas. Please refer to the procedure in each lab.

OPTIONAL FEES

Student Parking

A student may purchase a parking permit for $25 each fall/spring semester or $10 for the summer session. Financial Aid students pay $20 each fall/spring semester and $10 for summer. A student, who does not wish to purchase a semester parking permit, may purchase a daily parking permit for $1 (4 quarters). Look for the coin-operated machines in various parking lot locations.
REFUND OF ENROLLMENT FEES

For all Enrollment and Non-Resident Tuition Refunds, submit your Enrollment Fee Refund Request form to the Cashier's Office. A refund or reversal of enrollment or tuition shall be made in accordance with the schedule listed below for reduction in program or withdrawal from class(es). This process shall be initiated upon receipt of an Enrollment Fee Refund Request form, which must have been submitted by the 4th week of the semester. Note, that class(es) must be dropped by the 10% point.

Full Semester Classes (16-18 week)
- A 100% refund is given upon withdrawal during the first two weeks of the semester.
- No refund or credit is given after withdrawal beyond the second week of the semester, even if registration occurred after the 1st week of school.

Summer and Short-Term Classes
The refund/reversal for short-term classes is based on the length of the class and the number of days per week the class meets.
- A 100% refund is given upon withdrawal by the 10% point.
- No refund is given after the 10% point.

Example:
Course is completed by the end of
4-week session 2nd day of session
6-week session 3rd day of session
8-week session 4th day of session

Note: Classes meeting fewer weeks or fewer days per week will have shorter withdrawal periods based on their 10% point.

Non-Resident/Foreign Tuition
The refund process shall be initiated upon receipt of an Enrollment Fee Refund Request form, which must have been submitted by the 4th week of the semester to the Cashier's Office. Class(es) must be dropped before requesting a refund. If no Enrollment Fee Refund Request form is submitted, credit balances may be applied or carried forward to future semesters.

The schedule of refunds for non-resident/foreign tuition is below.

<table>
<thead>
<tr>
<th>Fall/Spring Semesters</th>
<th>Refund Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before or during the first week of the session</td>
<td>100% of the original fees paid</td>
</tr>
<tr>
<td>During the second week of the session</td>
<td>75% of the original fees paid</td>
</tr>
<tr>
<td>During the third week of the session</td>
<td>50% of the original fees paid</td>
</tr>
<tr>
<td>During the fourth week of the session</td>
<td>25% of the original fees paid</td>
</tr>
</tbody>
</table>

Summer Sessions

<table>
<thead>
<tr>
<th>Refund Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before or during the first week of the session</td>
</tr>
<tr>
<td>During the second week of the session</td>
</tr>
<tr>
<td>During the third week of the session</td>
</tr>
</tbody>
</table>

Student Services Activities Fee

For fall, spring, and summer semesters, students must submit a refund request form to the Cashier's Office. A 100% refund will be given through the second week of the semester (for fall/spring semesters) upon complete withdrawal from classes. No refund will be given after the third week of classes. For summer semesters, 100% refund will be given through the first week of the semester upon complete withdrawal from classes.

Parking Fees

For fall and spring semesters, students must request a parking refund from the Cashier’s Office. A 100% refund will be given through the second week of the semester upon complete withdrawal from classes. The parking permit must accompany the Request for Parking Refund form. The same requirements apply to summer session; however, 100% refund is only given through the first week of the session.

Financial Aid Enrollment Fee Refunds

If subsequent to paying enrollment fees, a student becomes eligible for financial aid and receives an enrollment fee waiver (BOGFW), the student should submit a Refund Request form to the Cashier's Office.

Cancelled Classes

A full refund will be given for courses cancelled by Hartnell College provided a petition is submitted to the Cashier’s Office within one week of cancellation.

Students who are members of an active or reserve military service, and who receive orders compelling a withdrawal from classes, upon appropriate refund petition and verification shall receive a full enrollment fee refund unless academic credit is awarded.

UNITS OR GPA REQUIREMENTS

(FOR GOVERNMENTAL SUBSISTENCE)

In order to qualify for full governmental subsistence, students must carry a minimum program of new work as indicated below:

1. Veterans under U.S. Code, Title 38, Chapters 30, 31, 32 and 35 (as required by Veterans’ Administration) - 12 Units
2. Veterans’ dependents under U.S. Code, Title 38, Chapter 35 - 12 Units
3. Veterans under the Cal-Vet Bill - 12 Units

Students indicated below must carry a minimum program of study or maintain a specific grade point average.

1. Foreign (F-1 VISA) students - 12 Units
2. Student Body Officers - 9 Units
   (with a 2.0 grade point average)
3. Varsity Athletes - 12 Units
4. Social Security - 12 Units
PREREQUISITES, COREQUISITES & ADVISORIES

PREREQUISITES
Prerequisite means knowledge or skills preparation considered necessary for success in a course. Prerequisite requirements must be met in order to register for some college courses. A college course prerequisite is defined to mean “a condition of enrollment that a student must meet in order to register in a course or program.” (CCR T.5 §55200) It is the student’s responsibility to be certain that he/she has met the necessary prerequisite(s) for any course enrolled. The student will be dropped from any class where it is verified that the required prerequisite has not been successfully completed. Prerequisites will be validated after final grades have been posted.

See a counselor for assistance to clear any prerequisite requirement.

COURSE PREREQUISITE POLICY
Hartnell College REQUIRES students to complete prerequisites as pre-enrollment preparation. Prerequisites are listed in the College Catalog/Schedule include:

1. Courses for which a specific prerequisite has been established.
2. Sequential course work in a degree-applicable program, and
3. Courses in which an equivalent prerequisite exists at a four-year transfer college or university.

PREREQUISITE CLEARANCE FORM
If students have taken courses and met the prerequisite at another college, or completed a placement assessment at another college, then see a Hartnell College counselor prior to registration to complete a Prerequisite Clearance Form following the procedures below.

1. Student makes an appointment to meet with a counselor for advisement and to begin the process of submitting a Prerequisite Clearance Form.
2. Together, the counselor and student review transcripts/assessment test information, and the counselor determines a course equivalency, or using multiple measure criteria, the counselor indicates this on the form.
3. Student and counselor both sign the Prerequisite Clearance Form.
4. Unofficial transcripts, official transcripts or assessment scores are attached to the Prerequisite Clearance form.

A. If the prerequisite clearance is documenting other college coursework, the completed form is submitted to the Admissions & Records Office for clearance.
B. If the prerequisite clearance form is documenting other college assessment placement scores, the completed form is submitted to the STAAR* Assessment Office for clearance.
C. If the prerequisite clearance form is for Counseling 21 Orientation Clearance, the form is submitted to the Admissions & Records Office for clearance.

All Prerequisite Clearance Forms require 2 working days to process. Students will be able to register by PAWS Web Registration or ASAP* Telephone Registration within 2 working days of submission.

Please note that Official College/University or High School transcripts must be on file in the Admissions & Records Office for official graduation evaluation or official transfer credit evaluations. Some programs such as AHT, and Nursing also require official transcripts. Unofficial transcripts will be accepted only for purposes of Prerequisite Clearance. All transcripts submitted become the permanent property of Hartnell College. Transfer coursework that has been evaluated and approved by Hartnell College become a permanent part of the student’s overall Hartnell academic record and cannot be removed.

NOTE: An instructor’s signature on an add card does NOT waive the student from meeting the stated prerequisite(s) from the course.

PREREQUISITE CHALLENGE PROCESS
A student may challenge any prerequisite by completing a Prerequisite Challenge Petition available in the Admissions & Records Office or the Counseling Department. A prerequisite challenge requires written documentation, explanation of alternative course work, background or abilities which adequately prepare the student for the course. Prerequisites may be challenged for one or more of the following reasons:

1. The student has documented knowledge and abilities equivalent to those specified in the prerequisite course.
2. The College has not made the prerequisite course reasonably available.
3. The prerequisite is discriminatory or is being applied in a discriminatory fashion.
4. The College has not developed the prerequisite according to its established procedures or has not developed the prerequisite in accord with existing statutes.

Prerequisite Challenge Forms are to be filed with the appropriate Dean and/or Associate Vice President. Those specifying criteria are to be filed with the appropriate Dean and/or Associate Vice President of the area in which the course is taught. The appropriate Dean and/or Associate Vice President will review documentation provided and render a decision. If approved, the students will be notified to do the following:

1. Students may enroll in the course by taking the approved Prerequisite Challenge form to the Admissions and Records Office to enroll in the challenged class.

If disapproved, the appropriate Dean and/or Associate Vice President will discuss his/her decision with the student.

DEFINITIONS

PREREQUISITE: “Prerequisite” means a condition of enrollment that a student must meet in order to register in a course or educational program. (CCR T.5 §55201)

COREQUISITE: “Corequisite” means a condition of enrollment consisting of a course that a student is required to take simultaneously in order to enroll in another course. (CCR T.5 §55201)

ADVISORY: “Advisory on recommended preparation” means a condition of enrollment that a student is advised, but not required, to meet before or in conjunction with enrollment in a course or educational program. (CCR T.5 §55201)
Day and evening counseling services are under the heading Counseling. Specialized college, career exploration, development of assist the student with orientation to the Classes are also taught by Counselors to (SEP). before their first semester is completed to counseling services.

Counseling and Guidance
Professional counseling and guidance services are available to all students and prospective students of Hartnell College. Counselors assist students with exploring career, educational, personal goals, and planning a program of studies to fulfill the educational/course requirements to meet these goals. University transfer, vocational study, basic skills development, professional enrichment, and personal enrichment are all included in academic counseling services. All students should meet with a Counselor before their first semester is completed to formulate a Student Educational Plan (SEP).

Classes are also taught by Counselors to assist the student with orientation to the college, career exploration, development of skills for academic success and more. These classes are listed in the catalog under the heading Counseling. Specialized counseling is also provided through the DSP&S, EOPS, CalWORKS, Veterans and Transfer Center, Career Center Programs.

Day and evening counseling services are available by appointment and a walk-in basis. For more information and/or to schedule a counseling appointment, contact the Counseling Appointment Office located in the Classroom and Administration Building, Rm. C-165, (831) 755-6820 or contact your counselor directly at his/her office.

STUDENT SERVICES
Student Services has performed an integral function at Hartnell College for over 50 years. We develop and offer a wide variety of support services dedicated to complementing instructional programs and providing educational and cultural resources to students, faculty, administrative staff, and the community.

Our goal is simple: to recruit, retain, and graduate students. We believe that education should be accessible to all, and is a sound investment for the individual and the community.

As a team of well trained, dedicated professionals, we share a common objective to facilitate student success by providing exceptional support services tailored to the needs of the individual student. Because of our vision and determination, Student Services is a leader and catalyst for action and change within the Hartnell Community College District.

Student Services

STUDENT DEVELOPMENT SERVICES
Matriculation
Matriculation is a process designed to support and encourage student success, and it also ensures fair and consistent assessment, course placement, and equal access to campus resources. Matriculation brings the college and the student into an agreement for the purpose of realizing the student’s educational objectives.

The primary purpose of matriculation is to enhance student success. The matriculation agreement acknowledges responsibility of both the college and the student to attain this objective. All students will participate in the process unless there are specific exemptions. For the college, the matriculation agreement includes providing an admissions process, orientation to college, student services, pre-enrollment assessment, counseling and advisement on course selection, a curriculum or program of courses, follow-up on student progress with referral to support services when needed, and a program of institutional research and evaluation.

For the student, the agreement includes a general identification of an educational goal at the point of enrollment and declaration of a specific educational objective after reaching 15 college units. Students agree to be responsible for consistent class attendance, to complete assigned coursework, and to maintain constructive progress toward their educational goals. Students agree to participate in orientation, assessment, counseling and other follow-up services as designated by the college to help them reach their educational goal.

FREQUENTLY ASKED QUESTIONS (FAQS)
WHAT IS ASSESSMENT?
Assessment is the placement of all new students into the correct levels of English and math. Hartnell uses an electronic placement assessment called Accuplacer. This electronic placement assessment uses the latest technology to place students into the correct levels of English and math.

Who has to take the placement assessment? All new and returning students are required to take the placement assessment EXCEPT:

- students who have earned an AA/AS degree or more advanced degree;
- students who have completed both English 253 and Math 201 at Hartnell College or equivalent or higher courses with a grade of C or better at another college or university;
- students who provided Accuplacer scores from another California Community College within the last three years and have presented a copy of these scores to a Hartnell College counselor for review and documentation;
- students who are enrolling in courses in which English and math skills are not required (IT IS HIGHLY RECOMMENDED THAT ALL STUDENTS TAKE THE PLACEMENT ASSESSMENT);
- students who can provide scores to a Hartnell College counselor from the Advanced Placement Examination from the College Entrance Examination Board (CEEB), Educational Testing Service with a score of or above in the areas of English – Language & Composition, Math (Calculus AP).

Hartnell College agrees to provide

Efficient admissions process
Assessment of basic educational skills
Orientation to the college’s programs, services and policies
Advisement/counseling
Appropriate academic and vocational courses
Quality instruction
Attention to each student’s educational progress

Student agrees to

Declare an educational goal
Attend classes
Work diligently to complete assignments and courses
Meet with Counselors to discuss choices and update educational plans
Seek out support services as needed
Strive to make progress toward your educational goals

*Partnership Agreement*
for success between Hartnell College and each student

Hartnell College agrees to provide

Efficient admissions process
Assessment of basic educational skills
Orientation to the college’s programs, services and policies
Advisement/counseling
Appropriate academic and vocational courses
Quality instruction
Attention to each student’s educational progress

Student agrees to

Declare an educational goal
Attend classes
Work diligently to complete assignments and courses
Meet with Counselors to discuss choices and update educational plans
Seek out support services as needed
Strive to make progress toward your educational goals

STAAR*
Success through Assessment/orientation, Advisement and Registration
There are several components of the matriculation process. The activities for pre-enrollment services have come to be known by the acronym, STAAR* - Success Through Assessment/orientation, Advisement and Registration. These early matriculation components are crucial to student success.

The matriculation ‘partnership’ begins when a student submits an Application for Admission. This form is available in English and Spanish in each semester’s Schedule of Classes or by calling the Office of Admissions and Records (C-150), (831) 755-6711. (For additional information on the Admissions process see the Admissions section of this College Catalog.) It is also available on-line at www.hartnell.edu.

STUDENT SERVICES

15
FREQUENTLY ASKED QUESTIONS (FAQS)

I think I meet one of the exemptions from the placement assessment. What do I do?
See a Counselor and work with the Counselor to complete a Pre- requisite Clearance form. When you meet with the Counselor, be sure to bring all relevant documentation with you.

Where and when can I take the placement assessment?
The placement assessment is given in the STAAR Assessment Center located in the Classroom Administration Building Room C215. The Assessment Center is open Monday through Friday and some Saturdays. The placement assessment may be taken on a walk-in basis – no appointment is necessary. A monthly calendar showing Assessment Center hours is available in the Counseling Department Office. For additional information, call the Assessment Center at (831) 755-7754.

If you are driving from a distance, taking time off work, or obtaining child care to take the placement assessment, please call to make special arrangements. You can reach the Assessment Center at (831) 755-7754.

What do I need to bring with me when I take the placement assessment?
Photo identification such as a driver’s license. You will not be tested unless you have photo identification or ID card.

What services are available for students with disabilities?
The placement assessment is not a timed assessment and is accessible to most students with disabilities. Additionally, students with disabilities may arrange for modified placement assessment by calling the Disabled Student Services Program (DSP&S) at (831) 755-6760.

I don’t have a high school diploma or GED and I wish to receive financial aid. Do I need to take the placement assessment?
Yes. All prospective Hartnell College students without a high school diploma or GED must demonstrate their ability to benefit from college course work by passing the approved tests before receiving federal financial assistance. Certain Accuplacer tests are approved for ability to benefit purposes.

How does Accuplacer help with my Financial Aid?
If you did not graduate with a high school diploma or earn a GED and you plan to apply for financial aid, and you are not currently attending high school, then Accuplacer assessment scores can be used to satisfy one of the requirements for financial aid because Accuplacer is an approved Ability to Benefit test (ATBT).

Can I take the placement assessment more than once?
Students may take the placement assessment a second time under the following conditions:
1. at least fourteen days have passed since the first test (to allow for extra preparation and study), and
2. the student has talked with the Assessment Center staff or a Counselor about how to better prepare for the placement assessment and has received sample questions and study materials.

What if I want to take the placement assessment a third time?
Keep in mind that Accuplacer has been validated through the California Community College Chancellor’s Office that it has proven to be over 90 percent accurate, and that has been in use throughout the nation for more than 15 years. In order to take the placement assessment a third time, you must meet with the Vice President of Student Affairs and a Counselor. You can make an appointment with the Vice President by calling (831) 755-6822.

I’m a high school student. May I take the placement assessment at my high school?
The placement assessment is usually offered at local high schools as part of Hartnell’s Early Admit Program each spring. Check with your high school Counselor about the dates and availability. Also, see the Hartnell College web page for more information.

Do I need to bring my high school transcripts to my counseling appointment?
Yes! Transcripts are essential in education planning with your Counselor. However, high school classes cannot be used to meet prerequisites to college level classes.

Is there a fee to take the placement assessment?
No.

How long is my placement assessment valid?
Two years. Remember continued use of math and language skills may improve over time. If your scores are over two years old, you must take the test again.

How can I prepare for the placement assessment?
The Assessment Center staff has materials and sample questions to help you prepare. The materials and sample questions are available free of charge and can be picked up at the Assessment Center. Be sure to come to Assessment Center well rested. Be sure to eat properly before taking the placement assessment. No food or drink is allowed in the Assessment Center.

How long does it take for the placement assessment?
Most placement assessments take approximately 2 hours, however there is no time limit.

What if I don’t know how to use a computer?
No computer skills are required and the Assessment Center staff is available to help you in using the computer mouse, if needed.

When do I receive the results of the placement assessment?
A printed copy of your scores is available immediately upon completion of the placement assessment. Counselors and the Assessment Center staff will also have access to your results.

When I complete the placement assessment what is the next step?
The next step is to enroll in and complete Counseling 21: Student Skills for Success: Orientation.

What is Counseling 21: Student Skills for Success: Orientation?
Orientation is a short course (available on-line or as an on-campus course) for all new students designed specifically to help students succeed in college. Orientation provides important information on Hartnell policies, procedures, academic requirements, educational costs, student support services, college success techniques and strategies, and other important topics. Upon completion of Counseling 21, students will have knowledge of general education, college policies, university transfer requirements, and certificate and degree requirements.

Who should enroll in Counseling 21: Student Skills for Success: Orientation?
All new Hartnell College students should enroll and complete Orientation before or during their first semester.

Who has to take Counseling 21: Student Skills for Success: Orientation?
All new students are required to take Counseling 21 EXCEPT:
• students who have earned an AA/AS degree or more advanced degree;
• students who are enrolling in only 1 or 2 courses (less than 6 units) in which English and math skills are not required;
• students who have a goal of “personal interest” only;
• students who have completed an orientation at another college or university;
• students who have passed the COU-21 Orientation Challenge Exam with a score of 70 percent or greater. To take the exam, go to: www.hartnell.edu/students/counseling/challenge_exam.html

I think I am exempt from having to take Counseling 21. What do I do?
See a Counselor and work with the Counselor to complete a Pre-Requisite Clearance form. When you meet with the Counselor, be sure to bring any relevant documentation with you.

Should I see a Counselor?
Yes! All students are encouraged to schedule an appointment with a Counselor for educational planning, course selection, career development, major selection, individual counseling, personal development, connecting to other services, and referral programs on and off campus. To schedule an appointment with a Counselor, call (831) 755-6820.
ORIENTATION

All first time students to Hartnell College are required to participate in Counseling 21: Orientation classes are required before you can register, unless determined to be exempt. (See Exemptions to Orientation)

Hartnell College Counselors facilitate orientation classes. Topics include students' rights and responsibilities, attendance policies, student services guidance, information on vocational certificates and degrees and transfer to 4-year institutions. The Counselor will also advise students on course selections and write an individual first semester educational plan.

Counseling 21: Orientation classes are available throughout the year; dates and times are listed in each semester’s Schedule of Classes, and are available in the Counseling appointment office C-165 or by calling (831) 755-6820.

Academic Planning

All first time Hartnell College students are required to meet with a Hartnell College counselor, unless determined to be exempt. (See Exemptions from Counseling Services) The primary goal of this meeting is to assist students with appropriate course selection. Although many students will see a Counselor during their Counseling 21: Orientation classes, further questions and a more in-depth advising can take place during an individual advisement session.

Counselors are knowledgeable about educational choices. The aspirations and interests of the student are primary considerations before a career choice is pursued. Counselors' thoughtful suggestions make educational planning easier. Hartnell Counselors are available to assist students in the areas of career, academic and personal counseling.

Exemption from Orientation and Counseling Services

Hartnell college students may be exempt from Counseling 21: Orientation or Counseling advisement if they satisfy any one of the following:

1. have an Associate or more advanced degree
2. are concurrently enrolled in and have received orientation and/or counseling services at another college or university
3. are enrolled in less than six units and the academic goal is personal development
4. passed the Counseling 21: Orientation exam with a score of 70% or higher.

Submit the Request for Exemption Form, signed by a Hartnell Counselor to the Records Evaluators in the Office of Admissions and Records (C-150.) Copies of official transcripts/diplomas must be on file with this form by the end of the third week of classes.

Exempted students may participate in matriculation services if they so choose.

Follow-Up

Once a community member becomes a Hartnell College student and is enrolled in classes, Hartnell College’s partnership continues.

Because academic success is a ‘partnership’, students must commit to seeing a Counselor every semester to update or change their academic plan. An academic Counselor is the expert in assisting students in developing and reviewing their educational plan. Students still undecided on an academic goal or major are referred to appropriate career and life planning courses.

Hartnell College is continually researching and evaluating its Matriculation Plan to assure that students are receiving the best services to assist them in achieving their educational goals.

Transfer Planning

This section is designed to help students to plan an educational program at Hartnell College that will prepare them to transfer to the University of California, California State University, or a private college or university to earn a bachelor’s degree. Students are encouraged to meet regularly with a Hartnell counselor, and use the resources of the Transfer Center/Career Center to plan an academic program that will assure a smooth transition to the transfer institution of their choice. In addition to completing transfer requirements, students may also earn units toward an Associate in Arts or Associate in Science degree at Hartnell. With careful planning, both objectives can be reached by taking essentially the same set of transferable courses.

Hartnell’s Transfer Center/Career Center

The Transfer Center/Career Center provides information and offers workshops on choosing a college, transfer admission requirements, completing admission applications, writing the application essay, and financial aid. Transfer Center/Career Center staff can provide details about special Transfer Admission Agreements that Hartnell has developed with a number of four-year institutions that can guarantee students transfer admission.

Students with a clear transfer objective are more likely to meet transfer requirements in a timely manner. They can make the best use of their time and coursework by deciding on a transfer institution and major as soon as possible. Students unable to make these decisions when they enter Hartnell College may follow a general transfer pattern of courses while creating a Transfer Center/Career Center resource in making transfer plans.

Once you have chosen a major and the institution to which you plan to transfer, students should consult a Hartnell College counselor to discuss Major Preparation. Transfer Center/Career Center staff and Hartnell Counselors can assist students in planning for transfer.

University representatives often visit our campus to meet with students interested in transferring to their institutions. It is wise for the student to consult the catalog of the institution to which they plan to transfer to become familiar with specific transfer and Admission requirements. Many college and university catalogs are available for reference in the Transfer Center/Career Center, and students may write directly to the Admissions Office or visit the institution’s website to obtain an Information Bulletin that outlines requirements for admission as a transfer student.

Transfer of Credit

Students expecting to transfer to a four-year college or university can usually complete their freshman and sophomore years at Hartnell. Students must normally complete 60 transferable semester units to be classified as juniors upon entering a four-year college or university.

Students enrolled in a transfer program can complete their general education and most, if not all, of the and lower division requirements before transferring. High school subject deficiencies may be made up at Hartnell in order to meet university admission requirements. In some instances, students may qualify for transfer to the college of their choice by maintaining an acceptable grade point average in a minimum of 60 units of appropriate transfer courses.

Requirements for Transfer Students

A student can transfer from Hartnell College to a four-year college or university as a junior without loss of time or credits by completing the following:

1. Lower Division Preparation for the Major.
   These courses, which should be completed before transferring, provide the necessary background and preparation in order for the student to transfer into their major as a junior. Check with a Hartnell Counselors regarding Major Preparation Recommendations for your particular program and institution selection.

2. General Education Requirements.
   (Sometimes called “Breadth Requirements”). These are the courses required to obtain a bachelor’s degree regardless of major. Courses in writing, critical thinking, sciences, humanities and social sciences are included in general education. High unit majors such as engineering and the sciences will generally follow a different set of requirements and should meet with a Counselor for clarification and to ensure accuracy.

3. Electives.
   When courses for the major and general education requirements have been completed, enough elective courses must be taken in order to bring the total of all course work to a minimum of 60 transferable units.

The Transfer Center/Career Center and Counseling Department sponsors Transfer Day/College Night each fall. Call (831) 759-6007 to schedule an appointment with the Transfer Counselor.
ATHLETICS

Hartnell College offers a complete and diverse program of intercollegiate athletics for both men and women. Both programs compete under the rules of the California Community College Athletic Association (CCCAA), the Coast Conference and Northern California Football Association (NCFA) maintaining membership in each organization. Our current women’s intercollegiate sports are basketball, cross country, soccer, softball, track & field, and volleyball. Our current men’s intercollegiate sports are baseball, basketball, cross country, football, soccer, and track & field. Students enrolling in intercollegiate athletic programs must meet all CCCAA eligibility requirements. Student/athletes must be continuously and actively enrolled in and attending classes—minimum of 12 units (full-time student) and at least 9 of the 12 units must be attempted in courses counting towards remediation, career technical education/certificate courses, associates degree requirements, or transfer/general education as defined by the course catalog. In order to continue athletic competition, the student/athlete must maintain a 2.0 grade point average (GPA) and complete 18 academic units and 24 total units.

Dyan Miller
Dean of Physical Education, Health and Athletics
(831) 755-6830
PE 114
dmiller@hartnell.edu

Academic Athletic Counselor

The mission of athletic counseling is to connect Hartnell College student/athletes with programs and services aimed to support their academic and professional growth. Our services include academic, career and personal counseling, crisis intervention, course planning, academic progress monitoring, learning assistance, as well as 2- and 4-year college athletic eligibility education. Student/athletes will work with an athletic counselor to advise/provide them with a comprehensive individual educational plan.

Rich Givens
Student Athlete Counselor
(831) 755-6848
PE 114B
rgivens@hartnell.edu

Joanne Venegas
Sports Counseling Technician
jvenegas@hartnell.edu
(831) 755-6819
PE 146
jvenegas@hartnell.edu

Counseling Office– (831) 755-6820

The Student Affairs division is fully integrated within the college at large and works cooperatively with various other student support agencies, i.e., Financial Aid, Admissions & Records, Tutorial Center, Disabled Students, etc... Our objective is to provide information, resources, and referrals that empower students to persist towards graduation, transfer to a 4-year institution, and/or enhance their personal or professional growth.

Athletic Eligibility

In order to be eligible to participate in the Hartnell College Intercollegiate Athletic Program, a student athlete must be actively enrolled in (and attending) at least 12 semester units.

To continue athletic participation in any sport, the student athlete shall maintain a cumulative 2.0 grade point average (GPA) in accredited post-secondary course work. Computation begins at the start of the semester of the first participation.

In order to remain eligible after having first participated in a collegiate sport, a student athlete must pass 24 units prior to the next season of the sport with a cumulative grade point average of 2.0.

College eligibility is not affected by high school students attending classes at the community college. Participation in any scheduled contest in any institution above high school level during a sport season shall be recorded as one season's participation in that sport.

Athletic Facilities

Our Athletic facilities include two gymnasiums, swimming pool, fitness center, football practice field, all-weather track, soccer field, baseball field, softball field, wall climbing, and athletic training room.
STUDENT FINANCIAL AID

The purpose of Financial Aid is to assist eligible students in meeting educational costs while attending school. The primary responsibility for meeting college costs rests with the student and his/her family. However, we recognize that many students are not able to pay the full costs of a college education. For this reason, Hartnell College offers programs that provide assistance for students with documented financial need. Financial need is the difference between the costs of attendance and the resources available to the student. It is important for students to have sufficient funds available to begin their first two weeks of college although they have already been offered a financial aid award.

You are encouraged to call or visit the Financial Aid Office (FAO) for more information. It is located in CAB-170, or call (831) 755-6806. Our website is: http://www.hartnell.edu/financial_aid/

How to Apply for Financial Aid
1. Apply for admission to the College.
2. Complete a free application for Federal Student Aid (FAFSA) by contacting the U.S. Dept. of Education at 1-800-433-3253 or you may apply electronically via the web at http://www.fafsa.ed.gov
3. If required, additional documents must be completed and submitted to the FAO prior to the processing of Financial Aid funds. Contact the Hartnell College FAO regarding the Financial Aid processing procedures and applicable deadlines.
4. A new application (FAFSA) must be filed every academic year. Eligible students will be offered a financial aid package containing a combination of grants, work-study, and/or loans.

Financial Aid Programs
Financial aid consists of programs, which are funded and regulated by federal and state governments. The programs consist of two different types of aid: Gift Aid and self-help.

Grants (Gift Aid)
A grant is money a student does not have to repay. Students with bachelor's degrees are not eligible for grants. For Federal Grants, students must possess a high school diploma; GED; or pass a Federal recognized "Ability to Benefit Test" administered by the institution.

Federal Pell Grant
Grants range from $607-$5350 per year depending on Federal allocations.

Federal Academic Competitiveness Grant (ACG)
Grants range from $750 for first year recipients to $1,400 for second year applicants, depending on Federal allocations. This Federal Program was introduced in 2006-07.

Federal Supplemental Education Opportunity Grant (FSEOG)
A grant is awarded at Hartnell College according to a formula based on student need and generally will range from $100 to $200 per academic year.

Board of Governors Fee Waiver (BOGW)
A financial assistance program to offset enrollment fees, the Financial Aid Office determines student eligibility based on state guidelines and authorizes the Cashier's Office to use BOGW funds to waive the fee charges. The BOGW is available to California residents only.

Cal Grants (A, B, and C)
The State of California, through the Student Aid Commission, offers and administers several grant programs for undergraduate students. These include Cal Grant, A, B, and C. A student can receive only one type of Cal Grant.

Cal Grant A: To be used at a four-year university.
Cal Grant B: First year students attending two or four-year institutions.
Cal Grant C: Students enrolled in a vocational two-year program.

SELF-HELP (Monies earned or borrowed)
Self-Help is money either earned through institutional work or monies borrowed that must be repaid.

Federal Work-Study (FWS)
The award is based on need and hours worked under the Federal Work-Study Program. Students can not exceed twenty-hours per week and must maintain Satisfactory Academic Progress each semester (SAP).

Federal Family Education Loan (must be paid back)
The purpose of the Federal loan program is to make low interest loans available to students. The California Student Aid Commission guarantees most of the student loans.

NOTE: If the student transfers to another school and does not wish to begin repayment, a deferment request is obtained and submitted to the lender.

Satisfactory Academic Progress (SAP)
Federal regulations require that all students receiving financial aid comply with the Financial Aid Satisfactory Academic Progress Policy established by Federal Aid in compliance with Federal Regulatory Guidance. To receive Financial Aid, students must maintain the standards described below.

Length of Eligibility: Federal regulations require colleges to establish a maximum time frame during which students are eligible to receive financial aid. The maximum time frame for financial aid is 90 units attempted. Students are no longer eligible for financial aid after attempting 90 units. Programs requiring more attempted units are listed on the excessive worksheet. Students may use the appeals process. Contact the Financial Aid Office for information.

Grade Point Average (GPA)
To maintain Satisfactory Academic Progress and remain eligible for financial aid, students must maintain a minimum cumulative GPA of 2.0.

Unit Completion Requirement - Hartnell College will review each student’s record at the end of each academic semester. To maintain satisfactory academic progress, students must complete a total of 67% of all units attempted and a cumulative GPA of 2.0 or better.

STUDENT SERVICES

Students may not receive financial aid if he/she has already completed a certificate program or the student has received an AA, AS, BA or BS degree. Students can appeal all degrees to the Director of Financial Aid & Scholarship with the exception of those students who possess a BA/BS degree.

Scholarships
Scholarships are available for new, continuing, and transfer students who show academic interest, financial need, scholastic achievement, a desire to succeed, and community or campus involvement. Most scholarships are funded through generous contributions to the Hartnell College Foundation by community groups, businesses, foundations, and individuals who value education and want to make a difference in the lives of our students. A single application places the student in consideration for the various scholarships. Students can pick up an application in the Scholarship Office CAB 156C or visit our website at http://www.hartnell.edu/financial_aid/scholarships

How to Apply for Scholarships
1. Complete a Hartnell College Scholarship Application.
2. Write a one-page personal statement that includes the applicant’s personal and academic goals and financial need, including any special circumstances.
3. Submit a letter of recommendation from an individual who is familiar with the applicant’s academic progress and goals, such as a teacher or counselor.
4. Submit a transcript. Applicant’s Hartnell transcripts will be obtained by the Financial Aid & Scholarship Office.

Applicants are responsible for carefully reading the scholarship material and providing the required documentation. Scholarship deadline is clearly indicated on the application and brochure, flyers, banners, campus bulletin boards, and the Hartnell College website. No applications will be accepted after the posted deadline.

Applications will be reviewed by a committee in the spring for awards to be given out in the fall. Scholarship checks will be mailed to recipients at the beginning of the semester, after verification of enrollment and eligibility criteria, and receipt of a thank-you letter written by the recipient to the donor of the scholarship.

The Hartnell College Scholarship Office is available to assist students seeking scholarship information. The office is located in CAB-156C of the CAB building or call (831) 755-6811. Our website is: http://www.hartnell.edu/financial_aid/scholarships

Hartnell College Catalog – 2009/10
Extended Opportunity Programs and Services (EOPS)
The Extended Opportunity Program and Services (EOPS) is designed to recruit, retain, graduate, and/or transfer educationally disadvantaged, low income, and underrepresented students who have chosen to continue their education. Students receive assistance with their admission, registration, financial aid, book purchases, curriculum planning, academic and personal counseling, and other support services from counselors, administrative staff, and a team of well-trained peer advisors.

Cooperative Agencies Resources for Education (CARE)
As a supplemental component of EOPS, CARE provides educational support services designed for the academically under-prepared, low income and single parent population. Grants and allowances for educationally-related expenses (such as meals on campus, parking permits, bus passes, textbooks) may be awarded as a means of improving retention, persistence, graduation and transfer rates of these individuals. Students participating in CARE may choose certificate, license, associate degree or transfer program options. Nearly half of all CARE students seek to transfer to four-year institutions; almost 40 percent choose associate degree objectives.

A candidate for EOPS/CARE is defined as an individual who has the potential to perform satisfactorily at the college level but who has not been able to realize that potential because of economic, social, or educational reasons. The following criteria are used to determine for eligibility in the EOPS/CARE program:

(A) Successfully filed a financial aid application (FAFSA – Free Application for Federal Student Aid)
(B) Enrolled in at least 12 units
(C) Verification of family or individual yearly income
(D) Determined as educationally disadvantaged by the EOPS/CARE Program

Students interested in being considered for EOPS/CARE services should visit the EOPS Office or call (831) 755-6860.

CalWORKS
Hartnell College’s CalWORKs Program serves CalWORKs Cash Aid (formerly AFDC) recipients who enroll at Hartnell College. The program offers five student-centered services.

(1) Counseling/Case Management, which includes design of an education, study, and employment plan:
- Personal and confidential counseling;
- Selection of courses for rapid employment with a goal of long-term advancement in a chosen field;
- Linkage to campus and community resources;
- Placement with Hartnell College Child Development Centers (based on space availability);
- Coordination with Department of Social Services and employment development.

(2) Career and Job Programs and Services, which provide five areas of service:
- Vocational assessment for career decision-making;
- Local and state labor market information for informed decision-making;
- Access to the Job Bank;
- Subsidized training through the CalWORKs work-study program, not sanctioned against CalWORKs Cash Aid benefits;
- College credit for on-the-job training through Cooperative Work Experience.

(3) Education, which provides general employment skills and occupational training:
- Prepare people for jobs in the local labor market;
- Provide intensive, short-term training for higher wage jobs;
- Offer flexible entrance and exit schedules.

(4) Financial Aid, which includes grants and employment, and may cover the following educational expenses:
- Child care;
- Tuition and fees;
- Books and supplies;
- Living expenses;
- Transportation;
- Personal items.

(5) Coordination with EOPS/CARE Programs, providing additional services for single parents who receive CalWORKS Cash Aid and have children up to age 14.

The CalWORKs Program is located in the EOPS/CARE Center, which is open from 8:00 a.m. to 5:00 p.m., Monday through Fridays. To schedule an appointment to meet with a CalWORKs designated counselor, call (831) 755-6860.

Transfer Center/Career Center
The Transfer Center/Career Center offers comprehensive career advising, information, and individualized assessment. Available services include individual and group career planning and assistance with career exploration; college and training information; labor market information; and vocational assessment. Students may choose to pursue career planning by taking a class or workshop, or scheduling an appointment with a career advisor.

Assessments that measure an individual’s interest, aptitudes, personality traits, and work values are available. Assessments must be scheduled through a Counselor.

Staff are available to assist students with a variety of career-related services and activities. The Career Information System, available through the Transfer Center/Career Center, provides up-to-date computerized labor market and educational information.

For more information call the Career Center at 831-755-6007.

High School Equivalency Program (HEP)
HEP is a program designed to assist migrant and seasonal field workers to obtain a GED and either employment, military service, apprenticeship, Certificate of Skills Acquisition, Certificate of Achievement, or an Associates Degree. The program is funded by the US Department of Education Office of Migrant Education.

The services include:
- Module delivered GED curriculum
- Supplemental academic support
- Curriculum delivery is regularly reviewed and adjusted by HEP Advisory Committee
- Academic planning and enrollment assistance for a Mini-Certificate, Certificate of Achievement, or an Associates Degree

Contact HEP
Phone: (831) 770-7070
Fax: (831) 770-7074
Email: HEP@hartnell.edu
Job Bank
The Job Bank, located in the Transfer Center/Career Center, provides information for part-time, full-time, temporary, on-campus, federal, state, and summer work. The range of positions varies from unskilled part-time work to highly skilled technical positions.

Any student interested in seeking employment is encouraged to use the Job Bank frequently.

California Mini-Corps Program
Hartnell College is one of 20 colleges and universities which house a California Mini-Corps Program. This program provides training, experience, and support services to college students who are interested in becoming future bilingual educators. The student gains teaching experience by working at a school site, in this county, under the guidance and supervision of a Master Teacher and a Mini-Corps Coordinator. This is a federally funded program which provides direct categorical services to Migrant Students. A class is given to train Mini-Corps students in better meeting the needs of migrant students.

Students enrolling in the program must be full time students; have a 2.0 or above GPA; have bilingual skills; and have knowledge of or come from a Migrant Family background.

The California Mini-Corps Program is located in the College Center Annex, Room 110. Office hours are posted on the door. Interested students may write, drop by, or phone (831) 755-6927 for applications or further information.

Veterans' Services
Hartnell College is approved as an institution of higher learning for veterans and veterans’ dependents entitled to educational assistance. The Veterans Office staff provides assistance to Veterans and eligible dependents in planning educational programs and maintaining compliance with Veterans Administration regulations.

Certification to the Veterans Administration for educational benefits and admissions enrollment in the College are separate functions. It is important that VA beneficiaries notify both the Admissions and Records Office and the Financial Aid Office Certification Technician before they enroll in classes.

Additional Veterans information is located in the Admissions section of this catalog under Service Member’s Opportunity College, and non-traditional credit (military courses, MOS DANTES, etc.)

Department of Supportive Programs and Services (DSPS)
DSPS supports students with disabilities. DSPS provides services, instruction and accommodations to facilitate student success in academics and personal development. The following programs and services are offered for students:

- Accommodations, Sign Language Interpreters, and Supportive Counseling
- DSPS Office, Room HCC-102
- Adaptive Physical Education
  PE 1.147 – 1.247
- Learning Disability Services
  Education Skills Lab
  Learning Disability Specialists
- Learning Skills Courses
  LSK 90-211 and COU 21-23
- Sign Language Instruction
  COU 80-83
- WorkAbility and Job Placement Services
  LSK 129

Students with verified disabilities desiring any of these services or instructional programs should contact DSPS and make an appointment with a counselor by calling the DSPS office at (831) 755-6760 (voice) or (831) 770-6199 (TDD). Students may also contact DSPS through the Hartnell College website at www.hartnell.edu/students/dspssupport.

The DSPS office is located in the College Center, HCC-102.

ADAPTIVE PE

Melissa Stave
(831) 755-6876
PE Office 144
MStave@hartnell.edu

Yvonne Reid
(831) 770-6187
PE Office 144
YReid@hartnell.edu

International Student Services
Hartnell College offers special services to students from other countries who have entered the U.S. on F-1 or other study visas. The International Student Center, jointly with the Office of Admissions and Records, assists these students with the admission process, including documentation for the visa application; registration, academic and personal counseling, immigration matters, personal adjustment to college life, transfer, and career advising. The Center also provides referrals for on-and off-campus services, and assists students with off-campus housing.

For specific information and/or an appointment, call or stop by the Admissions & Records Office. (831) 755-6829. The Center e-mail address is inststud@hartnell.edu. More information about the International Student Program is online at www.hartnell.edu/students/international.

American Indian Services
Each year, the Bureau of Indian Affairs (BIA) provides grants to help eligible Native American students meet their college costs. To be eligible for the BIA educational grant, you must meet all of the following criteria:

(A) Be at least one-fourth American Indian, Eskimo, or Aleut as certified by a tribal group served by the BIA.

(B) Be enrolled or plan to enroll at an accredited College. (Hartnell is Accredited)

(C) Must have a completed FAFSA on file prior to requesting that the American Indian Program Office complete a BIA form.

(D) Be enrolled in 12 units or more per semester.

Further questions can be addressed to the Financial Aid office located in CAB-170, or call (831) 755-6806.
TRIO/Student Support Services Program

The TRIO Student Support Services Program is federally funded student retention program for first generation and/or low-income students.

The TRIO program offers a supportive environment for the students and acts as a home base for our students to utilize opportunities for academic development, including a first year student cohort program and continued monitoring and encouragement during the subsequent years of the student’s matriculation at Hartnell College. The students are assigned a TRIO Counselor that assists the students with an individualized educational plan that the student will complete to achieve their educational goal.

The TRIO staff endeavor to motivate the TRIO students towards the successful completion of their postsecondary education, whether graduation and/or transfer. The goal of the TRIO Program is to assist our students to make transitions from one level of higher education to the next. The TRIO program assists students to overcome barriers to succeed within higher education.

The services that are offered to TRIO students include first year student orientation, counseling; tutoring, transfer assistance; financial aid and scholarship assistance; academic and personal advising; peer mentoring; cultural enrichment activities; and university fieldtrips.

TRIO Eligibility Guidelines: low income and/or first generation college students; must be a U.S. citizen or legal resident; disabled students can qualify if they are low income; interested in transferring to a four-year institution; should have an academic need and a GPA of 2.0 or higher and must be educationally disadvantaged according to the federal guidelines.

For more information and/or an appointment, call, email or stop by the TRIO Student Study Center located in the Annex Room 113, (831) 759-6013

Director: Manuel Bersamin
email: mbersami@hartnell.edu
Counselor: Gemma Guribe
email: guribe@hartnell.edu

More information about TRIO Student Support Services is online at: http://www.hartnell.edu/sss/

STUDENT INSURANCE

When a student experiences an accident or injury on campus or during a college-sponsored event, an accident/injury report as well as essential insurance information is required to determine the level of assistance available. Students are to contact Campus Safety upon injury. An officer will respond and obtain medical assistance as well as gather other essential insurance information. Any questions regarding student injuries or accidents on campus should be directed to the Office of Student Affairs at (831) 755-6822 or EXT 6822.

It is mandatory that international students have health and accident insurance. International student insurance applications may be obtained from the Admissions and Records Office.

STUDENT LOCKERS

Student lockers may be rented from the cashier.

LOST AND FOUND

Claiming of and found articles should be turned in to the Campus Safety office or the switchboard located next to the Cashiers Office in the CAB building.

LIVING ACCOMMODATIONS

Hartnell College does not maintain residence halls. However, the Re-Entry Center, located in the College Center Annex, Room 105, maintains a listing of rooms and apartments for off-campus housing rental.
STUDENT ACTIVITIES
Associated Students of Hartnell College

The Associated Students of Hartnell College (ASHC) is the college’s officially recognized student government. Membership of the Associated Students is open to all students who are currently enrolled at Hartnell College.

The goal of the ASHC is to promote efforts into facilitating communication and leadership between students, faculty, the administration and the community. The ASHC manages the affairs of student activities and encourages student participation in social and cultural events. It provides support to student organizations and student representation on campus-wide shared governance committees.

The ASHC office is located in the College Center, Room HCC-101A. For more information call (831) 755-6825.

Student Clubs

Funded by the ASHC, student organizations and clubs provide an opportunity for students to share common interests and new experiences beyond the classroom.

Recognized by the college, campus organizations including honor societies, service and religious organizations, ethnic/multicultural focused, and departmental and special interest groups not only offer opportunities for social life, but also contribute to the development of student leadership.

For information about an existing club or about starting a new club, please stop by the Student Activities Office located in the College Center, Room HCC-101 or call (831) 755-6825.

MESA
(Mathematics, Engineering, Science Achievement)

The MESA Program at Hartnell provides a wide range of academic support programs and activities for students enrolled, majoring or interested in earning a degree from a four-year college in mathematics, science, engineering, or nursing.

WHAT DOES MESA OFFER?
• MESA Student Center in Merrill Hall 30 where students can study in a supportive environment
• Computer equipment and space for study groups in the Student Center
• Tutoring for individuals and groups in transfer level math and science courses
• Academic Excellence Workshops that accompany some math and science classes
• Academic, career, and personal counseling
• Workshops on scholarships, internships and financial aid
• Field trips to universities, science museums, industries, and research centers
• Book check-out program

If you are interested in joining the program and would like to pick up an application, drop by Merrill Hall room 22A to pick up an application and learn more about the program.

ACADEMIC REQUIREMENTS
Student must have all these:
• MESA students must be in math, science, engineering or nursing major
• MESA students must intend to transfer to a 4-year college
• Eligible to take Math 121 (Elementary Algebra) or higher level math
• Signed enrollment application
• Prepare 3-year education plan

When applying to the Hartnell College MESA Program, you must qualify under both the Educational and Financial Criteria.

Education Criteria:
• First generation college student
• Attended federally designated high school
• Under 24 - living on you own
• Began with math assessment under Math 121

Financial Criteria:
• Eligible for EOPS
• Board of Governors Fee Waiver
• GAIN Participants
• Receiving Financial Aid
• Work-Study Eligible
• TRIO Programs Participants
ACADEMIC POLICIES

Scholastic standards of Hartnell College are established to assist students in making appropriate educational plans. The College will advise students of their educational progress in order that students may make sound self-appraisal of their college work.

The regulations in this section are consistent with State Law and District Policy. They serve to inform students of standards that they are expected to maintain.

The determination of the grading system to be used in each course shall be made by the discipline offering the course. The grading system used in each course is published in the Catalog and Schedule of Classes.

Grades and Grade Point Averages
Grades from a grading scale shall be averaged on the basis of the point equivalencies to determine a student's grade point average. The highest grade shall receive four points, and the lowest shall receive 0 points, using only the following evaluative symbols:

<table>
<thead>
<tr>
<th>GRADE</th>
<th>DEFINITION</th>
<th>POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>Satisfactory</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>Barely Passing</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>Failing</td>
<td>0</td>
</tr>
<tr>
<td>P</td>
<td>Pass (at least satisfactory-units awarded but not counted in GPA)</td>
<td>0</td>
</tr>
<tr>
<td>NP</td>
<td>No Pass (less than satisfactory, or failing -not counted in GPA)</td>
<td>0</td>
</tr>
</tbody>
</table>

Pass/No Pass
The college offers:
1. some courses solely on the P/NP (Pass/No Pass) grade basis.
2. some courses solely on the standard letter grade basis.
3. some courses in which the student may choose to complete the course on either a pass/no pass or letter grade basis.

In accordance with the California Education Code and the Administrative Code Title 5, Hartnell College has established a grading policy which adds the P (pass) and NP (no pass) grades to the standard letter grades (A, B, C, D, F) used in college and universities. A course in which a P grade is earned indicates completion with "C" or better work and will apply towards the 60 units required for graduation but will not affect the student's grade point average. However, units attempted for which NP is recorded shall be considered in probation and dismissal procedures. A maximum of 12 units of P may be applied towards the Associate in Arts Degree. Courses in which a student has no such option (such as Work Experience) will not apply towards 12 units maximum. Courses in which a NP grade is earned will not apply towards graduation and will not effect the student's grade point average.

Offering courses for pass/no pass grades provides the student with the opportunity to explore areas outside his/her current interest without undue concern for his/her grade point average. This policy also recognizes that a standard letter grade may not always measure the value of a course to an individual student.

On or before the last day of the fifth week (or 25%) of the instructional term, the student shall inform the Admissions and Records Office, by petition, of his/her intention to complete a course for a grade or pass/no pass basis, and the instructor shall report to the Director of Enrollment Services a final grade of P or NP for students who so petition. Students may repeat a course in which a grade of NP is earned.

Grade Point Average
Grade Point Average (GPA) is determined by dividing the total units attempted into total grade points from A, B, C, D, and F grades. P, I, W, IP, and NP are not included in the total course units attempted.) For example, a student who earns a "B" in a class worth four units, and a "A" in a class worth three units, a "C" in a class worth two units, and "F" in a class worth three units, and a "B" in a class worth one unit would have a GPA (Grade Point Average) of 2.38, calculated as follows:

\[
\begin{align*}
4 \text{ units of B} \times 3\text{ points} & = 12 \text{ grade points} \\
3 \text{ units of A} \times 4\text{ points} & = 12 \text{ grade points} \\
2 \text{ units of C} \times 2\text{ points} & = 4 \text{ grade points} \\
3 \text{ units of F} \times 0\text{ points} & = 0 \text{ grade points} \\
1 \text{ unit of B} \times 3\text{ points} & = 3 \text{ grade points}
\end{align*}
\]

13 total units attempted = 31 total grade points
31 Grade Points = 2.38 Average
13 Total Units Attempted = (or a 2.38 GPA)

President's Honor Roll and Dean's List
Full-time students earning a grade point average of 3.5 to 4.0 in a semester are included on the President's Honor Roll each semester. Those full-time students who earn a grade point average of 3.0 to 3.49 in a semester are placed on the Dean's List. This applies only to students completing 12 or more units of letter grade work per semester.
Non-Evaluative Symbols
The following non-evaluative symbols authorized are I, RD, W and MW.

Definitions:
Incomplete (Symbol “I”) Inconceivable academic work for unforeseeable, emergency and justifiable reasons at the end of the term may result in an “I” symbol being entered in the student’s record. The condition for removal of the “I” symbol shall be stated by the instructor in written record which shall also indicate the grade to be assigned in lieu of its removal. This record must be given to the student with a copy placed on file in the Office of Admissions and Records until the “I” is made up or the time limit has passed. A final grade shall be assigned when the work stipulated has been completed and evaluated, or when the time limit for completing the work has passed. The “I” must be made up no later than the last class day of the semester following the one in which the “I” was assigned; otherwise, the in lieu grade will automatically be entered on the transcript. Students may not register for the same course in order to make up the incomplete work. The “I” symbol shall not be used in calculating units attempted nor for grade points. The student may petition the instructor for a time extension (one additional semester only) due to extenuating circumstances.

Withdrawal (Symbol “W”) Students’ withdrawal from a class or classes shall be authorized through the last day of the fourteenth week (or 75%) of the instructional term. No “W” will be given after the fourteenth week. After the fourteenth week, the only grades given will be A, B, C, D, F, NP, P. No notation (“W” or other) shall be made on the academic record of the student who withdraws during the first four weeks or 30% of a term, whichever is less.

For semester length courses (16-18 weeks), withdrawal between the end of the fourth week and the last day of the fourteenth week of instruction shall be recorded as a “W” on the student’s record. For courses less than a semester in length, withdrawal between 30% and 75% of the course shall be recorded as a “W” on the student’s record. The “W” shall not be used in calculating grade point averages, but excessive “Ws” (see Standards of Probation and Dismissal) shall be used as factors in probation and dismissal procedures.

The Director of Enrollment Services may, by regulation, authorize withdrawals from a class or classes in extenuating circumstances after the last day of the fourteenth week (or 75% of the term, whichever is less) upon petition of the student or his/her representative. The Director of Enrollment Services will consult with the appropriate faculty. Extenuating circumstances are verified cases of accidents, illnesses, or other circumstances beyond the control of the student.

Military Withdrawal (Symbol “MW”) The “MW” shall be assigned only for students who are members of an active or reserve military service and who receive orders compelling a withdrawal from courses. Upon verification of such orders, this symbol may be assigned at any time during the semester by the Director of Enrollment Services. The “MW” shall not be counted in progress probation and dismissal calculations. “W” grades incurred after January 1, 1990, which meet the definition of “MW” may be changed to “MW” upon petition and verification of military orders.

Report Delayed (Symbol “RD”) The “RD” symbol may be assigned by the Director of Enrollment Services only. It is to be used when there is a delay in reporting the grade of a student due to circumstances beyond the control of the student. It is a temporary notation to be replaced by a permanent symbol as soon as possible. “RD” shall not be used in calculating grade point averages.

Grade Reports
Hartnell College does not issue final grade reports each semester. Semester grades are generally available three weeks from the last date of the semester. It is the student’s responsibility to check his/her grades at the end of each semester. Students may access their semester grades three ways:

1. Call the ASAP* (Admissions Services Available by Phone) at (831) 755-6755 to hear their grades from 5:00pm-8:00pm.
2. Access PAWS for students at www.hartnell.edu. Students may print their own grade reports.
3. Stop by the Admissions & Records Office with a picture ID to obtain a printed copy of your semester grades.

Examinations
Final examinations are mandatory in all courses except laboratory courses. The examinations will include essays, term projects and/or term papers, and/or, where appropriate, use symbol systems and/or skill demonstrations by students. In laboratory courses, final examinations are given at the option of the instructor. Each final examination should be comprehensive and be based upon the entire semester’s work. Mid-semester and other examinations are encouraged.

Excess Units
A student who wishes to enroll in more than 18 units per semester must review their units with a counselor and complete an Excess Units Petition. Counselor approval on the Petition is required.
Grade Change Petitions must be hand-delivered by the instructor or appropriate Associate Vice President to the Admissions & Records Office for processing.

Important Note: Except in the cases of mistake, fraud, bad faith, or incompetency, a grade assigned by an instructor is not a grievable issue as described by the California Education Code (Section 76224): “… when grades are given for any course of instruction taught in a community college district, the grade given to each student shall be the grade determined by the instructor of the course and the determination of the student’s grade by the instructor, and in the absence of mistake, fraud, bad faith, or incompetency, shall be final.”

Academic Renewal Procedures
A student who wishes to qualify for a degree, certificate, or General Ed Certification may request that up to 30 semester units of substandard course work taken at Hartnell may be disregarded in grade point computation.

Approval of the request is subject to the following conditions:

1. The student completes and submits a written Academic Renewal Student Petition form to a counselor who verifies that the following conditions have been met:
   a. The work completed in the term(s) under consideration is substandard and not representative of present scholastic ability and level of performance.
   b. It can be demonstrated that the level of performance in the term(s) under consideration resulted from extenuating circumstances. Such extenuating circumstances shall be those acute medical, family, or other personal problems which rendered normal academic functioning unlikely or impossible. Such circumstances must be verified in writing.
   c. Two years (4 semesters, excluding summer) have elapsed since the most recent work to be disregarded was completed.
   d. The student has completed 30 semester units leading to a certificate, associate degree, or university transfer requirements at Hartnell with at least a 2.5 GPA since the end of the term to be disregarded.

2. The student completes 30 semester units at another institution with at least a 2.5 GPA since the end of the term to be disregarded.

If the request is approved, the student’s permanent record will be annotated to indicate that the discounted courses do not apply toward the degree, certificate, or General Ed Certification requirements concerned. However, all work remains on the record. Note that this policy only applies to Hartnell degree requirements and it may not be accepted at other institutions.

Repetition of Courses
Hartnell College recognizes that the most recent completion of a course should most accurately reflect the students’ academic progress. Thus, students may repeat for credit courses taken at an accredited college in which substandard grades were recorded (“D,” “F,” and “NP”). All repetitions of the course must be completed at the same college.

The student must petition the Director of Enrollment Services to count for grade point calculation only the most recently earned units, grades, and grade points when the student has repeated the course with an A, B, C, D, F, or P. Both the original and subsequent grade will remain on the Permanent Record Card (transcript). Students are advised that in transferring to other institutions they may be held responsible for all units attempted.

There are occasions when students may need to repeat a particular course in which a grade has been received. Special circumstances warranting such repeats include:

1. The student is repeating the course to alleviate substandard work which has been recorded on the student’s record. The term “substandard” shall be defined as course work for which the grade symbol “D,” “F,” or “NP” has been recorded. The grade and credit earned in the second enrollment shall be used exclusively in determining the grade points earned for that particular course; or,
2. The District finds that the student’s previous grade is, at least in part, the result of extenuating circumstances. Extenuating circumstances are verified cases of accidents, illness, or other circumstances beyond the control of the student. Grades awarded for courses repeated under this circumstance shall not be counted when calculating a student’s grade point average; or,
3. The District has determined that a student should repeat a course because there has been a significant lapse of time (at least two years) since the student previously took the course. Grades awarded for courses repeated under this circumstance shall not be counted when calculating a student’s grade point average; or,
4. The District has determined/certified that each identified course is one in which the course content differs each time it is offered, and that the student who repeats it is gaining an educational experience for one of the following reasons:
   a. Skills or proficiencies are enhanced by supervised replication and practice within class periods; or
   b. Active participatory experience in individual study or group assignments is the basic means by which learning objectives are attained; or

5. Significant changes in technology, methodology, and content have occurred. Grades awarded for courses repeated under this circumstance shall not be counted when calculating a student’s grade point average.

When course repetition occurs, the permanent academic record shall be annotated in such a manner that all work remains legible, insuring a true and complete record.
Auditing Classes
The Governing Board of Hartnell College has adopted a policy authorizing the auditing of courses pursuant to Education Code 72252.3. The following regulations have been developed for course audit.

General Regulations
1. Auditors must be eligible for admission to the College as regularly enrolled students.
2. Students may audit a designated course only if they have previously taken the course and received a passing grade or must have repeated a performance, skill, or activity course three times, the maximum number permitted by state regulations.
3. Students enrolling for credit will have priority in all credit classes. Auditors are required to attend the first class meeting. However, auditors will only be permitted to register for the course at the conclusion of the late registration period and on a space-available basis, but no later than Friday of the second week of classes.
4. Faculty members instructing audit-eligible courses have the right to refuse auditors.
5. No transcript of record will be maintained for audit classes.
6. No transfer from audit to credit status or the reverse will be permitted.
7. A non-refundable audit fee of $15 per unit will be payable at the time of enrollment as an auditor.
8. Students enrolled in ten or more units will be charged a fee for auditing three or fewer units per semester.
9. Regular material fees and/or course costs will be charged to auditors.
10. Auditors will be allowed to purchase parking permits.
11. Auditors will not be charged the regular Enrollment Fee which is paid for credit enrollment.
12. The non-resident Tuition Fee will not apply to auditors.

Auditing Procedures
1. A prospective auditor will bring the “Petition to Audit” form to the instructor after the conclusion of the add/drop period.
2. If the instructor approves, he/she signs the form.
3. The auditor then secures the signature of an appropriate Associate Vice President.
4. The auditor returns the completed petition to Admission and Records.
5. The auditor pays a non-refundable audit fee of $15 per unit payable at the Cashier’s Office and will be charged for all instructional materials.

Credit by Examination (Challenging a Course)
As authorized by the Administrative Code, Title V, Section 55753, credit by examination may be granted based on the following:
1. Students petitioning for Credit by Examination must have completed a minimum of six semester units at Hartnell College. Students must have a cumulative grade point average of 2.0 or better.
2. A Completed Petition for Credit by Examination must be submitted to receive college credit for a course listed in the College Catalog. The petition must indicate the experience that has prepared the student to take the examination.
3. Students must meet all course prerequisites.
4. Students must pay all fees associated with this Credit by Examination.

A student will not be permitted to challenge a course in which she/he was enrolled in the current or preceding semester. The grade earned on the examination will be entered on the student’s permanent transcript and clearly annotated to reflect that credit was earned by examination. An examination may not be repeated.

The examination may be written, oral, and/or demonstrative/manipulative. The instructor and the appropriate Associate Vice President must approve the Petition for Credit by Examination.

- In no case may credit be awarded for more than one course in a sequence of courses.
- An applicant for the Associate Degree program in Nursing who uses a challenge procedure must challenge Nursing courses in sequential order and will receive an examination grade and number of units for each course.
- Units from challenged courses do NOT count toward the college’s graduation requirements, selective service deferment, veterans’ or social security benefits, financial aid, or scholastic honors. The student will be charged the same per-unit fee for her/his residency status as for any other course.

ATTENDANCE POLICY
Regular attendance and consistent study are student responsibilities and the two factors which contribute most to a successful college experience. A college student is expected to attend all of his/her class sessions. It is the responsibility of each student to know the attendance and absence policy of each class in which he or she is enrolled.

Failure to attend class can result in a lower grade or dismissal from class. Any student who stops attending a class without officially dropping it in the Admissions & Records Office may receive a grade of “F.”

The College’s attendance policy relies on the following five basic premises:
1. Students who do not attend the first class meeting may be dropped and may be replaced by other students unless the student notifies the instructor in advance.
2. Any absence from class is detrimental to a student’s progress in that class; therefore, an “excused” absence is no less serious than “unexcused.” Participation in curricular and extra-curricular College activities is acknowledged to be an integral part of a student’s total educational experience. Prior approval from the instructor is necessary for this participation not to be considered an absence.
3. Any lack of attendance which leads an instructor to judge that unsatisfactory progress is being made may result in the student being dropped. Absence from a full-semester class in excess of two weeks (consecutive or non-consecutive) may result in the instructor dropping the student. That is, a student may be dropped after missing one more class meeting than twice the number of class meetings per week.

Absences in excess of one week (consecutive or non-consecutive) from a Summer session class, or any regular semester class from 6-17 weeks in duration, may result in the instructor dropping the student. That is, a student may be dropped after missing one more class meeting than the number of class meetings per week.

Absence in excess of 10% of the scheduled class meetings in classes from 1-5 weeks in duration may result in the instructor dropping the student. That is, a student may be dropped after missing one more class meeting than 10% of the total number of scheduled class meetings.

4. When a student is dropped due to the attendance policy, the assignment of a “W” will be based on the drop occurring before the 14th week for a full semester class. After the 14th week, no drops are allowed, and the only grades given will be: A, B, C, D, F, NP, P. It is the student’s responsibility to withdraw formally from classes by the last day to withdraw with a “W.” Any student who stops attending a class without officially dropping it in the Admissions & Records Office may receive a grade of “F.”
5. If the student has been dropped due to the attendance policy, the instructor may reinstate the student only if all of the following conditions are met:
   a. the student had been doing satisfactory work,
   b. in the judgment of the instructor, the student has a reasonable chance of passing the course, and
   c. the student verifies extenuating circumstances beyond his/her control.

The student must complete a Student Reinstatement Form with supporting documentation. Student Reinstatement Forms may be obtained from the Admissions and Records Office. If the student is denied reinstatement, the student may petition the Associate Vice President for Student Affairs and Athletics.

PROBATION AND DISMISSAL

Students who have attempted 12 or more units with a grade point average of less than 2.0 will be considered scholastically deficient. There are three conditions of deficiency:

1. Probation (Academic and Progress)
2. Subject to Dismissal
3. Dismissed

Placement on Probation

Academic Probation

Students with 12 or more attempted units whose grade point average (GPA) for all work attempted at Hartnell College falls below a 2.0 ("C") will be placed on academic probation.

Progress Probation

Students who have 12 units or more attempted, but have failed to complete more than 50% of the cumulative number of units attempted, due to entries of "W," "I," and "NP" will be placed on progress probation.

Explanation: Student grade reports carry the designations "UA" and "UC."

Definition of Units Attempted ("UA"): All units in which the student was enrolled after the "No Grade of Record" drop date of a semester.

Definition of Units Completed ("UC"): All units in which the student received a grade of A, B, C, D, or P.

Responsibility of Probationary Students

1. Probationary students must meet periodically with their counselors so that their academic progress may be reviewed.
2. Probationary students will be advised to take a program of study that is designed to assist them in raising their GPA.

Removal from Probation

Academic: Students will be removed from academic probation upon earning a 2.0 ("C") average or better in all college work attempted at Hartnell College and when the overall Grade Point Average for all college work attempted equals a 2.0 ("C") or better.

Progress: Students will be removed from progress probation once their cumulative units completed is 50% of the cumulative units attempted.

Probationary students' grade reports will indicate when they have been removed from such status.

Subject to Dismissal

For "Subject to Dismissal" purposes, consecutive semesters are based upon the student's enrollment. If not enrolled during the Spring semester, then Fall followed by Summer would be consecutive.

Progress: Students on progress probation will be subject to dismissal after two consecutive semesters of progress probation.

Academic: A student who is on academic probation shall be subject to dismissal when the student's earned cumulative grade point average is less than 2.0 in all units attempted for two consecutive semesters.

Dismissed

A student shall be dismissed when the student's earned cumulative GPA is below 2.0 for three consecutive semesters.

Standards for Dismissal

For purposes of this section, semesters shall be considered consecutive on the basis of the student's enrollment pattern rather than the calendar pattern. For example, the semesters of a student enrolled fall, not spring, but again fall are considered to be consecutive.

A student who is on academic probation shall be subject to dismissal if the student earned a cumulative GPA of 1.99 or below in all units attempted in each of the three consecutive semesters which were graded on the basis of the grading scale.

A student who has been placed on progress probation shall be subject to dismissal if the percentage of units in which the student has been enrolled for which entries "W," "I," and "NC" are recorded in at least three consecutive semesters reaches or exceeds 50%.

Readmission

Students who have been dismissed from Hartnell College or other accredited collegiate institutions may apply at the Admissions and Records Office for readmission after one semester of nonattendance. Students so applying may be readmitted after completing a petition and an educational plan with their counselor and the approval of the Vice President of Student Services and Athletics.

Students readmitted who have a grade point average of less than 2.0 ("C") for the term immediately following readmission shall be dismissed from the College and not be eligible for readmission for a period of one academic year.

Note: Students readmitted after dismissal from Hartnell College or other accredited collegiate institutions may be restricted in the type of classes and the number of units taken.

In extreme cases in which dismissal resulted from extenuating circumstances, students ineligible for admission under the above regulations may appeal via the Vice President of Student Services and Athletics for specific consideration. Such extenuating circumstances shall be those acute medical, family, or other personal problems which rendered normal academic functioning unlikely or impossible.

BASIC SKILLS COURSE LIMITATION:

State regulations specify that students may take no more than 30 semester units in "Pre-Collegiate Basic Skills" courses. However, this limit shall not apply to the following students:

1. Students enrolled in one or more courses of English-as-a-Second-Language.
2. Students identified by the College as having a verified learning disability.

SEE YOUR COUNSELOR FOR A LIST OF BASIC SKILLS COURSES.

Appeal and Waiver Procedures

1. A student seeking to waive or appeal the unit limitation on enrollment in pre-collegiate basic skills courses shall submit a Pre-Collegiate Basic Skills "Waiver" Petition to a Hartnell Counselor. The Counselor shall meet with the student to review his/her academic record (transcript) and develop an academic educational plan for the next semester. The student shall forward the Pre-Collegiate Basic Skills "Waiver" Petition, the student's educational plan, and academic record (transcript), to the Director of Enrollment Services for review.
2. The student shall sign a form acknowledging his/her knowledge of the limitations of the waiver.
3. Permission to waive the 30-unit limit will allow the student to enroll in basic skills.
courses for a period not to exceed one semester and for a maximum of 10 basic skills units.

4. Once a waiver is approved, the student will be allowed to register in basic skills classes up to the maximum unit limit approved. If the waiver is denied, the counselor shall refer the student to appropriate adult education programs or community services.

5. A student whose waiver was previously denied may start the process at Step 1 above for reinstatement upon the successful completion of coursework, or a community services program, and/or appropriate scores on the Hartnell College STAAR® Assessment tests. In addition, a Hartnell counselor recommendation for approval on the Pre-Collegiate Basic Skills “Waiver” Petition is required.

STUDENT CONDUCT and DUE PROCESS

Student Rights

In joining the academic community, students enjoy the right of freedom to learn and share responsibility in exercising that freedom. Students, as well as other members of the academic community, are expected to conduct themselves in accordance with the standards of the College which are designed to perpetuate its educational purposes. When a student is charged with misconduct, such a charge will be processed in accordance with the College’s Student Conduct and Due Process Policy in order to protect the student’s rights and the College’s interest. Copies of the Students’ Rights, Responsibilities, and Grievance Procedures are available from the Office of Student Affairs.

Privacy Rights of Students

Students are advised that the College maintains a policy pursuant to Federal and State law providing access to students’ records only upon written request of students or former students. The College does maintain directory information which is defined as:

1. Student participation in officially recognized activities and sports including weight and height and high school of graduation of members of athletic teams.
2. Degrees, awards, and scholarships received by students, including honors and President’s or Dean’s List recognition.
3. Names, addresses, phone and fax numbers of graduates and former students for publication in the College alumni directory and only with their consent.

This directory information can and will be made public unless individual students request in writing to the Vice President of Student Services and Athletics that their name be removed from the directory information. Unless authorized by the individual student or required by judicial order, the College will not provide access to student records or acknowledge student enrollment to other persons, including parents. Specific written authorization by the student is needed to release records, including the forwarding of transcripts.

Specific exceptions to this statement on accessibility of the records are spelled out in the policy. The detailed policy is not reproduced here, but is available from the Associate Vice President of Student Affairs and Athletics.

Students (and former students) are also advised that they have a right to challenge the content of their records if they feel that such records contain inaccurate, misleading, or otherwise inappropriate information. Contact the Admissions and Records Office.

Solomon Amendment

Hartnell College is required and fully complies with the Solomon Amendment. For more information on this amendment, visit the website below:
www.aacrao.org/compliance/solomon/index.cfm

Student Grievances

The general procedures for a student with a grievance to follow are fully described in the Student Rights & Responsibilities Handbook. Copies of the Student Rights & Responsibilities Handbook are available in the Office of Student Affairs.

Student Grievances include:

1. Charges of discrimination on the basis of race, color, religion, sex, sexual orientation, age, disability, marital status, ancestry, national origin, or veteran status.
2. Charges of arbitrary imposition of sanctions without proper regard for individual rights and due process
3. Charges of prejudicial or capricious decisions in the academic evaluation of a student’s performance
4. Other complaints as determined in the legislation policies stated above

Note: Records of all complaints that are not resolved at lower levels must be kept on file with the Office of Student Affairs.

Grievances of Hartnell College students concerning Hartnell College personnel and/or procedures shall be handled in compliance with Title IX, AB 803, Section 504 of P.L. 93-112, the California Education Code, and Hartnell College policy. Students shall be granted and assured all rights and procedures inherent in the above. Hartnell College shall make a comprehensive effort to ensure that all students are informed of and, as applicable, assisted with these procedures in a timely manner.

DRESS GUIDELINES

Hartnell College students are expected to demonstrate maturity by exercising good judgment and taste in everyday attire. Students are required to be fully attired (undergarments covered) including footwear.

Instructors in charge of field trips and/or social events may enforce additional dress regulations which they deem are required for the occasion.
Policy on Cheating

Dishonesty includes, but is not limited to, in-class cheating, out-of-class cheating, plagiarism, knowingly assisting another student in cheating or plagiarism, or knowingly furnishing false information to College staff, faculty, administrators or other officials. Following are definitions of in-class cheating, out-of-class cheating, plagiarism, and furnishing information. These are not all-inclusive, and the list itself is not meant to limit the definition of cheating to just those mentioned.

1. In-class cheating: During an examination or on any work for which the student will receive a grade or points, unauthorized looking at or procuring information from any unauthorized sources or from any other student’s work.

2. Out-of-class cheating: unauthorized acquisition, reading or knowledge of test questions prior to the testing date and time; changing any portion of a returned graded test or report and resubmitting as original work to be regarded; or presenting the work of another as one’s own for a grade of points.

3. Plagiarism: unauthorized use of expression of ideas from either published or unpublished work(s) as a student’s own work for a grade in a class. This also includes the violation of copyright laws, including copying of software packages.

4. Furnishing false information: forgery, falsification, alteration, or misuse of College documents, records, or identification in class or in laboratory situations.

Instructor Disciplinary Action When Cheating/Plagiarism Occurs

When a student is charged with plagiarism or cheating related to a class and the instructor has reasonable proof or documentation or the student admits the violation, the instructor may select one or more of the following options:

1. Issue an oral or written notification and warn the student that further acts of this sort will result in additional disciplinary action.

2. Issue a "NP" or a failing grade ("F") for the assignment in question.

The Faculty will refer the case to the Vice President of Student Affairs and Athletics with the related documentation for record of the violation. The Associate Vice President of Student Affairs and Athletics may consider additional sanctions as outlined in the "Penalties for Student Misconduct" in cases of continued plagiarism or cheating.

The student has a right to appeal any of these disciplinary actions and the right to have the case reviewed by a Hearing Board. If the student wishes to appeal, he/she should contact the Associate Vice President of Student Affairs and Athletics within five (5) working days of notification of the disciplinary action.

CODE OF STUDENT CONDUCT

The District has an obligation to specify those standards of behavior essential to its educational mission and campus life. The following types of misconduct for which students are subject to disciplinary sanctions apply at all times on campus, off-site centers, and at any off-campus functions sponsored or supervised by the College:

1. Cheating, plagiarism, or knowingly furnishing false information in the classroom or to a College staff member (see Policy on Cheating located in the college catalog).

2. Forgery, alteration, or other misuse of College documents, records, or identification.

3. Transmission, copying, or use of any material in violation of any United States or state regulation is prohibited. This includes, but is not limited to, copyrighting material, threatening or obscene material, or material protected by trade secrets. Downloading, viewing, storing or printing files or messages that are profane, obscene, or that use language that is offensive or degrading to others is not allowed.

4. Physical or verbal abuse of any person or group, or conduct which intimidates, threatens, or endangers the health or safety of any person or group. Assault, battery, or any threat of force or violence upon the College’s staff members, students, or visitors.

5. Interference with the normal operations of the College (e.g., obstruction or disruptions of teaching, research, administration, disciplinary procedures, pedestrian, or vehicular traffic, or other College activities, including its public service functions or other authorized activities on College premises).

6. Disruptive behavior, willful disobedience, profanity or vulgarity or the open defiance or abuse of College personnel.

7. Lewd, indecent, or obscene conduct or expression on any College owned or controlled property or at any College sponsored or supervised function.

8. The College must protect the Constitutional Rights of free expression under the First Amendment. The District is committed to creating an educational environment that does not tolerate harassment or discrimination. The following acts are violation of the Hartnell College Standards of Student Conduct:
   a. Suggestive or obscene letters, notes, or invitations, derogatory comments, slurs, jokes, or epithets, assaults, touching, impeding or blocking movement, leering, gestures, or the display of sexually suggestive objects or pictures or cartoons.
   b. Continuing to express sexual interest after being informed that the interest is unwelcome. (Reciprocal attraction is not considered sexual harassment.)

9. Theft of, or damage to, the property of the College, staff members, students, or visitors. Such actions may result in the imposition of fees for the loss, damage, or defacement of books and equipment; the cancellation of registration; the withholding of grades or transcript; and, in extreme cases, legal action.

10. Unauthorized entry into or use of College facilities.

11. Failure to pay just debts such as fines or loans, and failure to return borrowed property when reasonable attempts have been made to retrieve it.

12. Hazing or any acts of discrimination that injures, degrades, or disgraces another person or group.


14. The use of alcohol or unlawful drugs, or the distribution, sale, or possession of such alcohol or other drugs on College property, or at events sponsored by the College. (As defined in the Drug-Free Schools and Communities Act Amendment of 1989 (Public Law 101-226).

15. Unauthorized possession or use of firearms, explosives, dangerous chemicals, or other weapons on College property or at College sponsored or supervised activities.

16. Smoking in classrooms or other unauthorized campus areas. Smoking is not permitted within 20 feet of any main entrance, exits, and operable windows of any building at Hartnell College.

17. Failure to comply with lawful directions of College officials, faculty, staff, or campus safety officers who are acting within the scope of their duties.

18. Violation of District policies or College regulations concerning the registration of student organizations, the use of District facilities, or the time, place, and manner of public expression.

19. Using or consulting sources or materials, including electronic devices, during an examination unless expressly authorized by the instructor or as a permitted accommodation.

20. Violation of other applicable Federal and State statutes and College rules and regulations.

ANIMAL CONTROL

1. No personal pets or animals are allowed on the Hartnell College campus except for:
   a. Professional service dogs for persons with a verified disability.
   b. Animals used in an instructional program.

2. Students not observing this regulation will be in violation of the Student Code of Conduct and may have sanctions enforced as a result.
HARTNELL COLLEGE STUDENT RIGHT-TO-KNOW INFORMATION

The federal Student Right-To-Know (SRTK) and Campus Security Act of 1990 requires all institutions of higher education to disclose information about program completion. The information presented here shows the academic outcomes for three years for all first-time, full-time students who were first enrolled at Hartnell College in fall 2001 with educational goals of earning a degree, earning a certificate, or transferring to a four-year institution. Please note that this cohort represents only 1% of all students enrolled at Hartnell College during the fall 2001 semester. Under SRTK criteria, program completion is defined as earning a degree, a certificate or completing 56 transferable units with a grade point average of 2.0 or higher within the three years (fall 2001 through spring 2004). It excludes all part-time students and those students who have one of the following educational goals: improving basic skills, upgrading job skills, maintaining licenses, or personal enrichment.

The table below provides the completion and transfer rates for Hartnell College and the averages of all California community colleges for comparison.

The table shows that Hartnell College’s official SRTK completion rate for the 2002 cohort is 49%. The statewide average for completion is 36%. The official SRTK transfer rate for Hartnell is 24% and the state average is 29.6%. However, this figure substantially under represents the success of Hartnell College in preparing its students for transfer to four-year institutions. The SRTK methodology only allows each student to be counted once, even though a student can complete both a degree and transfer to a four-year institution. Students who complete both a degree and also transfer are counted only in the completion category but are not counted in the transfer category.

The SRTK process tracks other student outcomes besides completion and transfer. At the end of the three year tracking period, each student is placed in one of five categories: completion, transfer, still enrolled, left in good standing, or left in poor academic standing. In addition to the completing and transferring, which account for 54% of the students in the SRTK cohort, another 8% left the college in good standing and 29% were still enrolled. Ten percent of the students left the college under other circumstances. This means that 84% of the students in this cohort have achieved some degree of academic success while at Hartnell College.

<table>
<thead>
<tr>
<th>Group</th>
<th>SRTK Completion Rate (including Transfers)</th>
<th>SRTK Transfer Rate (Excluding Completers)</th>
<th>Combined Completion and Transfer Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hartnell College</td>
<td>49%</td>
<td>24%</td>
<td>43%</td>
</tr>
<tr>
<td>California Community College Average</td>
<td>36%</td>
<td>21%</td>
<td>46%</td>
</tr>
</tbody>
</table>

1. The cohort follows first-time students for three years who first enrolled in fall 2001 and continued through spring 2004.
2. SRTK Completion is defined as earning a degree, certificate or completing 56 transferable units with a grade-point average of 2.0 or higher within three years.
3. SRTK Transfer Rate refers to any student who transferred to another two-year or four-year institution without completing a degree, certificate, or becoming transfer prepared within three years.
4. Combined Transfer Rate represents the percent of students in the SRTK cohort who either completed a degree, certificate, became transfer prepared, or transferred to a UC or CSU within three years.

This Student-Right-To-Know Program Completion information is also available in the Hartnell College Schedule of Classes and in the College catalog.

Hartnell College Catalog – 2009/10
INSTRUCTIONAL PROGRAMS

Educational Programs at Hartnell College are varied and designed to meet the specific needs of the District residents.

General Education
General Education is that part of education which is concerned with the common knowledge, skills, and attitudes needed by each individual to be effective as a person, a family member, a worker, and a citizen. General Education courses require students to cultivate the disciplines of scholarship and to develop the attitudes necessary for academic achievement in upper-division work. Hartnell College has a full articulation agreement with the California State University System and the University of California Board of Regents, which certifies completion of lower division general education requirements.

SPECIAL OCCUPATIONAL PROGRAMS

Nursing
Hartnell College offers students the opportunity to major in Nursing (AA Degree) leading to eligibility to take the licensing examination and become a Registered Nurse.

Primary Care Assistant
In cooperation with Foothill College and Stanford Medical School, the academic prerequisites for the Stanford Physicians Assistant Program can be completed at Hartnell College. The clinical components are available at Stanford University in concert with the preceptor (medical doctor) assigned to sponsor the candidate.

Animal Health Technology
The Animal Health Technology Program offers students the opportunity to complete coursework leading to an AS Degree in Animal Health Technology. Completion of required courses qualifies students to take the state certification examination and become registered as a Veterinary Technician.

Apprenticeship Programs
In cooperation with the Joint Apprenticeship and Training Committees of Monterey/Santa Clara/Santa Cruz Counties, the College operates apprenticeship programs, whereby students can prepare for the skilled labor force. At the present time, opportunities for apprenticeship exist within the electrician discipline. Apprentices are employed full time during the day and take related classroom instruction at the IBEW Local Union 234, Castroville, California.

Cooperative Work Experience Program
Cooperative work experience provides a bridge between the classroom and on-the-job training involving the student, faculty, College, and an employer. Students work in a job related to their career interest on a part-time basis while attending classes at Hartnell College. The program provides a gradual transition from formal instruction to career, allows students to apply knowledge gained in the classroom to the practical world of work, and permits students the opportunity to test their interest in and suitability for the field of interest endeavor.

Primary Care Associate Program
Stanford University Medical Center and a consortium of community colleges have developed a program to train individuals who function in association with physicians in the maintenance and delivery of primary health care to medically underserved communities. Accordingly, these health care providers are called Physicians Assistants. The program includes fifteen months of clinical curriculum instruction coordinated through Stanford University Medical Center. Emphasis during the clinical period is placed on skills necessary for the comprehensive assessment of the patients needs. Specifically these include skills in history taking, physical examination, basic laboratory techniques, minor diagnostic and therapeutic procedures, and patient counseling and education. The Physician Assistant student is exposed to a curriculum which combines the traditional concepts of both physicians assistant and nurse practitioner training.

For brochures see Math & Science Counselor.

CONTACT INFORMATION
Primary Care Associate Program
Stanford University, School of Medicine
1215 Welch Road, Module G
Stanford, CA 94305-5408
Phone: (650) 725-6959
Fax: (650) 723-9692

INSTRUCTIONAL PROGRAMS

COURSE NUMBERING

1-99 Courses numbered 1 through 99 are baccalaureate level courses, carrying lower division credit at most four-year colleges and universities. In accordance with the Chancellor’s Office of the California State Universities and College’s Executive Order No. 167, Hartnell College has developed courses which are baccalaureate level. The California State Universities and most private, independent college/universities accept Hartnell courses numbered 1-99. Courses numbered 100 through 199 may be accepted for transfer credit at some CSU, UC, or private/independent college/universities in certain majors. Most courses numbered 1-50 are accepted by most University of California campuses; however, students should consult the “University of California Transfer Course Agreement (TCA)” listed via Internet at www.assist.org for the most current information and any limitations. Hartnell courses transfer to four-year college/universities in terms of specific or elective credit depending upon the institution and major selected.

1-199 Courses numbered 1-199 are associate degree level courses and apply toward the 60-unit graduation requirement for the Associate Degree. Courses 100-199 are intended as associate degree level courses; however, some may transfer to four-year colleges and universities in certain occupational curricula. Consult a counselor to determine which courses transfer to a four-year institution.

200-299 Courses numbered 200-299 do not transfer and are not associate degree level courses. These courses do not apply toward the 60-unit graduation requirement for the Associate degree.

300+ Courses numbered 300+ are non-credit courses. These courses are non-associate degree level and are not transferable.

Selected Topics
Selected Areas of study, which are intended primarily for courses offered on an experimental or trial basis, may be offered through any discipline contained in the catalog by using the number 39 (or 139 or 239). The same content may not be offered more than three times under Selected Topics. Selected Topics may be repeated for credit if taken with different course content.
CSU/UC NOTATIONS ON COURSES
The designation of “CSU or UC” at the end of a course description signifies the course has been approved for at least elective credit by those university systems. In addition, if the course has the designation CSU-GE, Area designator or IGETC, Area designator, a general education requirement within the designated area could be satisfied with the course. Courses that carry a number between 1-99 are expected to transfer for baccalaureate credit to four-year institutions, but the individual senior institution or a counselor should be consulted to determine the transferability of a specific course. “Baccalaureate applicable” courses in the 1-99 course numbering meet the following criteria: 1) the course has procedural rigor and treats subject matter at university level OR 2) the course is parallel to one offered at a California State University or University of California campus. The ASSIST database at www.assist.org gives specific transfer course information for most all CSU and UC majors and individual course-to-course agreements.

ACADEMIC LEARNING CENTER
The Hartnell College Academic Learning Center offers students, the opportunity to improve their academic skills and increase their knowledge in a variety of subject areas. The Academic Learning Center consists of the following labs: Computer Lab, Language Lab, Math Lab, Reading and Writing Lab, and Tutorial Center. Some of these labs are also available to students at Alisal Campus and King City Center. Students work under the supervision and guidance of instructors, instructional assistants and trained tutors.

Computer Lab
The Computer Lab, located in CAB 211, offers self-paced courses in computer skills, internet resources, word processing, keyboarding skills and tutoring on computer applications in other classes. The lab is open Monday-Friday 9 AM-1 PM, Tuesday, Wednesday and Thursday 5 PM - 8:30 PM, and Saturday 9 AM to 1 PM. Summer hours may vary. Questions may be asked in person or by calling (831) 755-6777.

Language Lab
The Language Lab, located in CAB 359A, offers individualized lab instruction in support of ESL curriculum from beginning to advanced through software and tutorial guidance. Open labs are available and hours vary by semester. Support is available through computer software and tutorial guidance. Questions may be asked in person or by calling (831) 770-7066.

Math Lab
The Math Lab, located in Annex, offers self-paced, credit/no-credit, open enrollment courses as well as tutorial assistance in math courses and workshops on math topics. The Math Lab is open Monday – Friday, 8:00 AM – 2:00 PM, Tuesday, 6:00 PM – 9:00 PM and Saturday 9:00 AM – 12:00 PM. Summer hours may vary. Questions may be asked in person or by calling (831) 755-6915.

Reading and Writing Lab
The Reading and Writing Lab, located in Annex, offers self-paced, credit/no-credit, open enrollment courses supporting students in basic to advanced level reading, writing, ESL, and English topics. The Reading and Writing Lab is open Monday – Friday, 8:00 AM – 2:00 PM, Tuesday, 6:00 PM-9:00 PM and Saturday, 9:00 AM – 12 PM. Summer hours may vary. Questions may be asked in person or by calling (831) 759-6018.

Tutorial Center
Tutoring services are available to all registered students free of charge. Tutors must be approved by an instructor and must complete a tutor training course. Students wishing to use tutorial services and students who wish to become tutors are encouraged to apply in Annex. The Tutorial Center is open Monday – Thursday, 9:00 AM – 6:00 PM and Friday 9:00 AM – 3:00 PM. Summer hours may vary. Questions may be asked in person or by calling 785-6866.

INSTITUTIONAL STUDENT LEARNING OUTCOMES
In accordance with its mission of ensuring that all students shall have equal access to a quality education and the opportunity to pursue and achieve their goals, it is also the College’s responsibility to ensure that students who graduate with an AA or AS degree should be able to demonstrate the following competencies:

Communication Skills
Students will read, write, speak, and verbally comprehend at a college level.

Information Skills
Students will define information needs accurately, access information efficiently and effectively, evaluate information critically, and use information ethically.

Critical Thinking
Students will use quantitative and logical reasoning to analyze information, evaluate ideas and solve problems.

Global Awareness
Students will understand and respect the cultural, economic, social, political, biological, and interdependence of global life.

Aesthetic Appreciation
Students will acquire an appreciation and involvement in the creation or performance of the work of fine arts/music/culture.

Personal Growth and Responsibility
Students will develop individual responsibility and personal integrity as well as contribute to their well-being and that of others, their community, and the world.
### HARTNELL COLLEGE DEGREES AND CERTIFICATES

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree</th>
<th>Certificate</th>
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<tbody>
<tr>
<td>Administration of Justice:</td>
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<td></td>
</tr>
<tr>
<td>Correctional Science</td>
<td>AS</td>
<td></td>
</tr>
<tr>
<td>Criminal Justice</td>
<td>AS</td>
<td></td>
</tr>
<tr>
<td>Paralegal/Legal Assistantship*</td>
<td>AS</td>
<td></td>
</tr>
<tr>
<td>Agriculture:</td>
<td>AS</td>
<td></td>
</tr>
<tr>
<td>Agriculture Business Emphasis</td>
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<td></td>
</tr>
<tr>
<td>Agriculture Production Emphasis</td>
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<tr>
<td>Animal Health Technology</td>
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<tr>
<td>Alcohol and Drug Abuse Counseling</td>
<td>AA</td>
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<tr>
<td>Art: Two-Dimensional Emphasis</td>
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<tr>
<td>Three-Dimensional Emphasis</td>
<td>AS</td>
<td></td>
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<tr>
<td>Auto Collision Repair</td>
<td>AS</td>
<td></td>
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<tr>
<td>Automotive Technology:</td>
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<td></td>
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<tr>
<td>Advanced Automotive Technician</td>
<td>AS</td>
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<tr>
<td>Automotive Shop Management</td>
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<tr>
<td>General Automotive Mechanics</td>
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<tr>
<td>Heavy Duty Diesel Technology—Transportation</td>
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<tr>
<td>Behavioral Sciences</td>
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<tr>
<td>Biology</td>
<td>AS</td>
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<td>Business Administration</td>
<td>AS</td>
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<td>Business Office Technology:</td>
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<tr>
<td>Accounting Emphasis*</td>
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<tr>
<td>Information Processing Emphasis</td>
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<tr>
<td>Chemistry</td>
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<tr>
<td>Chicana/Chicano Studies</td>
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<tr>
<td>Communication Studies*</td>
<td>AS</td>
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<tr>
<td>Computer Science and Information Systems:</td>
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<td>Computer Science Option</td>
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<td>PC and Networking Support</td>
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<td>Digital and Web Design Option</td>
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<tr>
<td>Construction:</td>
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<tr>
<td>Construction Management AS</td>
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<tr>
<td>Construction Technology—Carpentry</td>
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<tr>
<td>Construction Trade Skills</td>
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<tr>
<td>CSU/General Education Breadth (CSU/GE)</td>
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<tr>
<td>Digital Arts</td>
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<tr>
<td>Digital Arts—Animation Specialist</td>
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<tr>
<td>Drafting (see Engineering Technology)</td>
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<tr>
<td>Early Childhood Education:</td>
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<td></td>
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<tr>
<td>Infant and Toddler Emphasis*</td>
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<td></td>
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<tr>
<td>Special Needs Emphasis*</td>
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<tr>
<td>Supervision Emphasis*</td>
<td>AS</td>
<td></td>
</tr>
<tr>
<td>Earth Science</td>
<td>AS</td>
<td></td>
</tr>
</tbody>
</table>

### Program Options

- Elementary Teacher Preparation: AS
- Electronics Technology: AS
- Engineering: AS
- Engineering Technology: AS
- Architectural Emphasis * (formerly Drafting): AS
- Mechanical Emphasis * (formerly Drafting): AS
- English: AA
- General Studies: AA
- Humanities Emphasis: AA
- Language and Rationality Emphasis: AA
- Natural Science Emphasis: AA
- Social and Behavioral Sciences Emphasis: AA
- History: AA
- Industrial Technology: AS
- Industrial Mechanics: AS
- Industrial Technician: AS
- Intersegmental General Education Transfer (IGETC): AS

### Liberal Arts (formerly Transfer Studies):

- Anthropology Emphasis: AA
- Art and Design Emphasis: AA
- Communication Emphasis: AA
- Culture and Society Emphasis: AA
- History Emphasis: AA
- Humanities Emphasis: AA
- Languages and Literature Emphasis: AA
- Performing Arts Emphasis: AA
- Political Science Emphasis: AA
- Psychology Emphasis: AA
- Sociology and Social Sciences Emphasis: AA
- Mathematics: AS
- Music: AA
- Nursing: AS
- Registered Nursing: AS
- Vocational Nursing: AS
- Photography: AA
- Physical Education: AS
- Physics: AS
- Psychology: AS
- Real Estate: AS
- Social Sciences: AA
- Spanish*: AA
- Theatre Arts: AA
- Transfer Studies (see Liberal Arts): AS
- Welding Technology: AS

*Pending Chancellor's Office approval

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**INSTRUCTIONAL PROGRAMS**

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**Associate Degree programs allow students the benefits of a general college education and the option of choosing occupational training, liberal arts, or concentration in a discipline within the College. In addition, Hartnell College offers a variety of programs designed to develop and upgrade vocational proficiency and for which Certificates of Achievement are offered.**

**Students must submit a Petition for Associate Degree/Certificate of Achievement to be evaluated for eligibility to be awarded a Degree or Certificate. Deadlines for filing the Petition are noted in the Schedule of Classes and are posted in the Admissions and Records Office. To be awarded a Certificate of Achievement from Hartnell College, it is required that at least half of the required number of units to be taken at Hartnell College.**

**Not all courses required for listed programs may be offered during this catalog cycle. Please contact a counselor for current information (831) 755-6820.**

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Hartnell College Catalog – 2009/10
ASSOCIATE OF ARTS/SCIENCE DEGREE

ASSOCIATE OF ARTS OR SCIENCE DEGREE
General Information - 2009/2010 Graduation Requirements for the Associate Degree

GRADUATION HONORS
Honors on the graduation card is determined by the GPA at the time of evaluation (reflected on the student’s graduation worksheet). The GPA includes all Hartnell and transfer degree-applicable coursework. The diploma and transcript will reflect one of the 3 following levels, if applicable:

3.25 - 3.49 cum laude
3.50 - 3.74 magna cum laude
3.75 - 4.00 summa cum laude

For the ceremony, HONORS will be announced rather than the cum laude level. A final determination will be made once final grades have been reviewed. Graduation honors will be annotated on the student’s official transcript.

GRADUATION EVALUATION
Students who wish to receive an Associate Degree must submit a Petition for Associate Degree/ Certificate to the Admissions & Records Office to have college course work officially evaluated. Transcripts from all institutions previously attended must be submitted as part of the graduation evaluation process. The evaluation compares completed college work with the curriculum requirements for the year that the student began continuous enrollment at Hartnell.

CATALOG RIGHTS
Provided that continuous enrollment is maintained students may elect the degree or certificate requirements in effect at
1. the time of entrance to Hartnell College, or
2. any catalog year thereafter.

Continuous enrollment is defined as attendance at Hartnell College during both Fall and Spring semesters each year. Any academic report symbol (A through F, P, NP, I, IP, RD, W) shall constitute enrollment.

DOUBLE MAJOR
Although students may not receive two associate degrees simultaneously, they may concurrently complete the requirements for a second major. An Associate of Arts or Associate of Science Degree, with a double major, can be earned by completion of all General Education, Competency Requirements, and course work required for both majors: a single diploma is issued with both majors listed. The General Education and General Studies majors may not be included as part of the Double Major.

ADDITIONAL ASSOCIATE DEGREE
Having received an A.A., A.S., Bachelor’s Degree or higher, a student may qualify for an A.A. or A.S. Degree in other fields (with the exception of an A.A. Degree in General Education or General Studies) provided a minimum of 12 units in residence are completed after the previous degree was awarded.

I. Units/Grade Point Average
A minimum of 60.0 Semester Units with a grade of “C” or better must be maintained in all degree applicable units. Only courses numbered 1-199 may apply toward the Associate Degree.

II. Residence
Of the sixty units required for graduation the student must have completed one of the following residence requirements:
1. A minimum of 45 units at Hartnell if not in attendance during the semester of graduation.
2. A minimum of 12 units in residence if in attendance at Hartnell during the semester of graduation.

III. Competency Requirements
1. Competency in Written Expression and Reading
   Completion of English 1A with a grade of “C” or better. The English 1A competency in written expression may also be counted to meet other minimum requirements for the Associate Degree. Students in AHT, MLT, or Nursing (RN) majors should take an English 1A section with “Multicultural Perspective”, thus fulfilling the Ethnic Groups in the United States graduation requirement, as well as, the Written Composition requirement. These three majors are the only majors that allows the double counting of these two degree requirements can be made.

2. Competency in Mathematics
   Completion of Math 123 (5 units) or completion of any math course in which Math 123 is a prerequisite with a “C” or better. All students must meet the 6.0 unit Communication & Analytical thinking requirement.

   Note: A maximum of 5 units of Math 123, Intermediate Algebra, may be applied towards the AA or AS Degree Requirements.

IV. General Education
A minimum of 21 units which shall include courses in each of the following areas:
   1. Natural Sciences (3 units)
   2. Social & Behavioral Sciences (3 units)
   3. Humanities (3 units)
   4. Ethnic Groups in the United States (3 units)
   5. Language and Rationality
      A. Written Expression (3.0) Units
      B. Communication & Analytical Thinking (6.0) Units

V. Major - Refer to requirements listed in catalog for chosen major.
ASSOCIATE OF ARTS/SCIENCE DEGREE

ASSOCIATE DEGREE GENERAL EDUCATION COURSE LIST 2009-2010

NATURAL SCIENCES (3 Units)  

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<th>Course Title</th>
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<td>ABT90</td>
<td>Soil Science</td>
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<td>ABT92</td>
<td>Plant Science</td>
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<tr>
<td>ANT1</td>
<td>Physical Anthropology</td>
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<tr>
<td>AST1</td>
<td>Introduction to Astronomy</td>
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<td>AST1L</td>
<td>Astronomy Laboratory</td>
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<tr>
<td>BIO1</td>
<td>Fundamental Biological Concepts</td>
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<tr>
<td>BIO2</td>
<td>General Zoology</td>
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<tr>
<td>BIO3</td>
<td>General Botany</td>
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<td>BIO5</td>
<td>Human Anatomy</td>
</tr>
<tr>
<td>BIO6</td>
<td>Introductory Physiology</td>
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<td>BIO6L</td>
<td>Physiology Laboratory</td>
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<tr>
<td>BIO7</td>
<td>General Microbiology</td>
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<tr>
<td>BIO10</td>
<td>General Biology</td>
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<tr>
<td>BIO11</td>
<td>Introductory Human Anatomy and Physiology</td>
</tr>
<tr>
<td>BIO12</td>
<td>Introduction to Genetics</td>
</tr>
<tr>
<td>BIO13</td>
<td>Introduction to Forensic DNA Analysis</td>
</tr>
<tr>
<td>BIO18</td>
<td>Physiology of Human Health &amp; Disease</td>
</tr>
<tr>
<td>BIO20</td>
<td>Field Biology/Natural Science</td>
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<tr>
<td>BIO27</td>
<td>Principles of Microbiology</td>
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<tr>
<td>BIO30</td>
<td>Marine Biology</td>
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<td>BIO42</td>
<td>Human Biology</td>
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<td>BIO47</td>
<td>Ecology</td>
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<td>BIO48</td>
<td>Environmental Science</td>
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<td>CHM1A</td>
<td>General Chemistry I</td>
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<td>CHM12A</td>
<td>Organic Chemistry I</td>
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<td>CHM12B</td>
<td>Organic Chemistry II</td>
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<td>CHM22</td>
<td>The Science of Chemistry</td>
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<td>CHM23</td>
<td>Organic and Biological Chemistry for Health Sciences</td>
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<td>CHM60</td>
<td>Principles of Chemistry</td>
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<td>GEG1</td>
<td>Introduction to Geography: Physical Elements</td>
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<td>GEL1</td>
<td>Dynamic Earth</td>
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<td>GEL2</td>
<td>Introduction to Geology</td>
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<td>GEL6</td>
<td>History of the Earth</td>
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<td>GEL25</td>
<td>Environmental Geology</td>
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<td>California Geology</td>
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<td>MET1</td>
<td>Meteorology-Weather and Climate</td>
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<tr>
<td>OCN1</td>
<td>Oceanography</td>
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<td>College Physics I</td>
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<tr>
<td>PHY2B</td>
<td>College Physics II</td>
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<td>PHY4A</td>
<td>General Physics/Mechanics</td>
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<tr>
<td>PHY4B</td>
<td>General Physics/Electricity and Magnetism</td>
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<tr>
<td>PHY4C</td>
<td>General Physics/Wave, Heat, Light and Modern Physics</td>
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<tr>
<td>PHY10</td>
<td>Introduction to Physics</td>
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SOCIAL AND BEHAVIORAL SCIENCES (3 Units)  

<table>
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<tr>
<th>Course Code</th>
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<tr>
<td>ADJ1</td>
<td>Introduction to Administration of Justice</td>
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<tr>
<td>ADJ51</td>
<td>Criminology</td>
</tr>
<tr>
<td>ANT1</td>
<td>Physical Anthropology</td>
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<tr>
<td>ANT2</td>
<td>Intro to Anthropology; Cultural Anthropology</td>
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<tr>
<td>ANT3</td>
<td>Introduction to Archeology</td>
</tr>
<tr>
<td>ANT10</td>
<td>California Indians</td>
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<td>ANT15</td>
<td>North American Indians</td>
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<td>ANT20</td>
<td>Cultures of Mexico</td>
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<td>AOD1</td>
<td>Fundamentals of Chemical Dependency</td>
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<tr>
<td>BUS32</td>
<td>Introduction to Business</td>
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<tr>
<td>COU35</td>
<td>Intercultural Communication</td>
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<tr>
<td>EC01</td>
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<td>EC05</td>
<td>Principles of Economics-Micro</td>
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<td>ETH1</td>
<td>Introduction to Ethnic Studies</td>
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<tr>
<td>ETH2</td>
<td>Chicano Leadership</td>
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Social and Behavioral Sciences (continued)

Hartnell College Catalog – 2009/10
### Humanities (3 Units)

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ETHNIC GROUPS IN THE UNITED STATES
(3 Units)

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NOTE: Only students in the AHT or Nursing (RN) programs can use ENG 1A College Composition and Reading/Multicultural Perspective as an Ethnic Groups course.

LANGUAGE AND RATIONALITY
(9 Units)

A. Written Composition (3 units)

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B. Communication and Analytical Thinking (6 units)

Completion of any Math course shown below with a grade of C or better fulfills the Math Competency requirement. In addition, choose course(s) from either category below to complete the remaining 6.0 unit requirement.

1. MAT2 Calculus for Managerial, Life, and Social Sciences
   - MAT3A Analytic Geometry & Calculus I
   - MAT3B Analytic Geometry & Calculus II
   - MAT3C Analytic Geometry & Calculus III
   - MAT4 Linear Algebra
   - MAT5 Differential Equations
   - MAT10 Math For Liberal Arts
   - MAT12 Number Systems
   - MAT13 Elementary Statistics
   - MAT14 Finite Mathematics
   - MAT24 Trigonometry
   - MAT25 Pre-Calculus Mathematics
   - MAT122 Plane Geometry
   - MAT123 Intermediate Algebra
   - MAT 123L4 Intermediate Algebra Lab 4

   NOTE: A maximum of 5 units of Math 123, Intermediate Algebra, may be applied towards the AA or AS Degree Requirements.

2. BUS1A Accounting Principles-Financial
   - BUS5 Introduction to Organizational Communication
   - CSS1 Intro to Comp Science and Programming Fundamentals
   - CSS2A Object Oriented Programming
   - CSS2B Data Structures and Algorithms
   - CSS3 Computer Architecture and Assembly Lang. Programming
   - CSS4 Introduction to Scientific and Engineering Programming
   - CSS6 Programming in Visual Basic
   - CSS12 Systems Analysis & Design
   - CSS31 Database Management
   - CSS 43 Computer Systems and Information Competency
   - CSS122 Computer Security Principles
   - CSS123 Network Security Principles

   NOTE: Only students in the AHT or Nursing (RN) programs can use ENG 1A College Composition and Reading/Multicultural Perspective as an Ethnic Groups course.

Language and Rationality (continued)

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<td>SPA4</td>
<td>Intermediate Spanish</td>
</tr>
<tr>
<td>SPA4S</td>
<td>Intermediate Spanish for Spanish Speakers</td>
</tr>
<tr>
<td>SPE1A</td>
<td>Essentials of Public Speaking</td>
</tr>
<tr>
<td>SPE3</td>
<td>Intro. To Communication</td>
</tr>
<tr>
<td>SPE5</td>
<td>Introduction to Organizational Communication</td>
</tr>
<tr>
<td>SPE8</td>
<td>Interpersonal Communication</td>
</tr>
<tr>
<td>SPE35</td>
<td>Intercultural Communication</td>
</tr>
</tbody>
</table>

Hartnell College Catalog – 2009/10
**Communication Skills**

Students will read, write, speak and verbally comprehend at a college level.

- Articulate orally and in writing viewpoints from multiple perspectives
- Listen actively and respectfully
- Follow oral and written directions
- Write with clarity to express ideas and convey information, concepts and conclusions

**Information Skills**

Students will define information needs, access information efficiently and effectively, evaluate information critically, and use information ethically.

- Define information needs, identifying the scope and level of information needed
- Access information in a variety of formats efficiently and effectively
- Critically evaluate information and sources
- Apply information to accomplish a task
- Access and use information ethically and legally
- Display technical competency by using appropriate software, electronic submission, and the Internet

**Critical Thinking**

Students will use quantitative and logical reasoning to analyze information, evaluate ideas and solve problems.

- Analyze arguments and develop one’s own hypotheses
- Interpret, analyze, explain and infer concepts and ideas using tools such as tables, graphs, statistics
- Critically analyze, evaluate and synthesize evidence in order to formulate logical arguments and make decisions

**Global Awareness**

Students will understand and respect the cultural, economic, social, political, biological, and interdependence of global life.

- Appraise one’s view of self and one’s relationship with the world
- Value one’s cultural heritage to better understand others
- Recognize others’ values, beliefs and cultures
- Develop an awareness of foreign languages and cultures

**Aesthetic Appreciation**

Students will acquire an appreciation and involvement in the creation or performance of the work of fine arts/music/culture.

- Reflect upon and critically assess the merits of their work and the work of others
- Articulate their personal response to works of fine arts/music/culture
- Develop global cultural knowledge through engagement with various forms of fine arts/music and their placement in diverse cultural contexts

**Personal Growth and Responsibility**

Students will develop individual responsibility and personal integrity as well as contribute to their well-being and that of others, their community, and the world.

- Examine the value of lifelong learning
- Select lifestyle choices that promote physical, mental and social health
- Develop conflict resolution and healthy emotional management skills
- Demonstrate ability to work collaboratively
- Recognize the importance of being an informed, ethical and active citizen

Hartnell College Catalog – 2009/10
LOWER-DIVISION TRANSFER PATTERNS (LDTP), TRANSFER, ARTICULATION

**LDTP**

The Lower-Division Transfer Patterns (LDTP) by Major project is one of several ways that California Community College (CCC) students earn credit towards their California State University (CSU) degree. For CCC students who know the major they wish to pursue and the CSU campus they wish to attend, traditional major preparation articulation and transfer admission agreements are valuable. However, for prospective transfer students who are uncertain about which CSU campus they will attend, LDTP provides a measure of flexibility and options for preparation. Additionally, LDTP may provide articulation for students whose community college does not have existing CSU articulation.

Just as CSU GE-Breadth is a statewide alternative to each CSU campus’ unique General Education program, the LDTP is a statewide alternative to each CSU campus' lower-division major preparation. Students who complete any portion of the statewide component of an LDTP benefit because CSU campuses offering the discipline will honor this as progress towards the CSU degree in the major field of study.

**LDTP Implementation**

A basic online LDTP academic planning tool for CCC students to use is currently under development. Chancellor's Office staff members are working with ASSIST to provide LDTP reports that would enable faculty and staff at the CCCs to view LDTP articulation. Effective Spring 2010 term, CSU campuses will be able to provide LDTP admission agreements for CCC students via CSU Mentor. Please visit: [http://www.calstate.edu/acadaff/ldtp/](http://www.calstate.edu/acadaff/ldtp/) to access more information, links to all discipline patterns, previous newsletters, and LDTP descriptors.

**Guaranteed Transfer Agreement**

Hartnell College has established Guaranteed Transfer Agreements, which guarantee qualifying students admission to many of the University of California and California State University campuses and to Santa Clara University. To be eligible, students must have completed a minimum of thirty transferable units and have a grade point average that meets the acceptable admission requirements at the university of their choice.

For more information and/or to apply for a Guaranteed Transfer Agreement, the student should contact a Hartnell College counselor, the Transfer Center at (831) 759-6007, or visit the Transfer Center.

**TRANSFER PLANNING**

Students planning to transfer have many options. The California State University with 23 campuses; the University of California with 10 campuses, and over 60 private, independent college/universities in California provide a wide range of academic programs. Hartnell College offers the equivalent of the first two years of these four-year college/university programs. Students pursuing any of these educational alternatives should meet with a counselor as early as possible to discuss their educational plan. Careful planning will help avoid mistakes, which could prolong academic goals.

Successful planning requires the following steps:

1. **Selecting a career goal**
2. **Selecting an appropriate college/university**
3. **Selecting an appropriate major to meet your career goal**
4. **Planning and completing an appropriate transfer program**
5. **Completing the application process**

All college/universities have specific admissions requirements and may have special course and unit requirements, as well as, minimum grade point averages that must be met prior to transfer. Once students identify their major and the college/university to which they wish to transfer, they should consult the respective catalog of the college/university for specific requirements. Catalogs for California State University campuses, University of California campuses, and many private, independent college/universities are available for use in the Transfer Center.

Four-year college/universities require students to complete specific general education requirements, as well, as, major requirements for the baccalaureate degree. Students should work toward completing both general education and lower division major requirements prior to transfer. Each four-year institution has its own basic pattern of lower-division requirements regarding both general education and specific majors. These requirements vary from college/university to college/university and often change from year to year. Therefore, students should take advantage of the publications and services available.

Articulation agreements with course-to-course and major-to-major equivalencies are available through the counseling office and can be accessed via Internet at [www.assist.org](http://www.assist.org) for most California State University and University of California campuses. Counselors will assist with interpreting articulation agreements and major requirements.

In accordance with the Chancellor’s Office of the California State Universities and College’s Executive Order No. 167, Hartnell College has developed courses which are baccalaureate level. The California State Universities and most private independent colleges accept Hartnell courses numbered 1-99. Courses number 1-50 are accepted by most University of California campuses; however, students should consult the “University of California Transfer Course Agreement (TCA)” listed via Internet at [www.assist.org](http://www.assist.org) for the most current information and any limitations. Hartnell courses transfer to four-year college/universities in terms of specific or elective credit depending upon the institution and major selected.

**Articulation Agreements**

Articulation is the process of negotiating and approving Hartnell College courses with other institutions. Hartnell has course-to-course and major preparation articulation agreements with nearly every UC and CSU campus, and many independent four-year colleges and universities. This information is available from a counselor, the Transfer Center, or via Internet at [www.assist.org](http://www.assist.org). College/University requirements and articulation agreements are continually changing. The following catalog pages represent our best attempt to provide current and pertinent information for transfer students.

ASSIST acronym stands for Articulation System Stimulating Interinstitutional Student Transfer, the official source for California articulation and student transfer information. ASSIST is the official repository of articulation for California’s colleges/universities and therefore provides the most accurate and up-to-date information available about student transfer in California.

**Program Changes**

Transfer Programs and Associate Degree requirements are subject to change without notice. Information about course offerings, fees, refunds and college policies published in this Catalog is subject to change. It may be necessary to cancel courses or programs without prior notice in this publication. Students should consult a Hartnell counselor for information.
CALIFORNIA STATE UNIVERSITY (CSU)
23 CAMPUSES

Admission as a Transfer Student to CSU

A student may satisfy CSU admission requirements as an upper division transfer student by:

- Completing a minimum of 60 transferable semester units
  - Maintaining a grade point average of 2.00 or higher in all transferable units attempted. Nonresidents must have a 2.4 grade point average.
  - Satisfying a minimum of 30 units of General Education including grades of C or better in: A1 Oral Communication, A2 Written Communication, A3 Critical Thinking, B4 Quantitative Reasoning.

Supplementary Admissions Requirements.
Some majors and campuses receive more applications during the initial filing period than can be accommodated and have higher admission standards. For detailed information regarding Impacted Undergraduate Majors and Campuses in the California State University, go to http://www.calstate.edu/AR/impactioninfo.shtml.

Admission Application Dates
To ensure consideration for admission to the campus of major of first choice, students are reminded to file a completed application form during the appropriate filing period shown below:

Term: Applications First Accepted

Summer Quarter: February 1 (preceding the summer term)
Fall Semester/Quarter: October 1 (preceding the term)
Winter Quarter: June 1 (preceding the term)
Spring Semester/Quarter: August 1 (preceding the term)

Application for impacted programs and campuses must be filed during the initial application filing period. Otherwise, each campus accepts applications until capacities are reached. If you are applying after the initial filing period, consult the campus admissions office for current information.

Apply online, www.csumentor.edu

UNIVERSITY OF CALIFORNIA (UC)
10 CAMPUSES

Minimum UC Transfer Eligibility Requirements

To be eligible for admission to UC as a transfer student, you must fulfill the following criteria:

- Complete 60 semester units (90 quarter units) of transferable college credit with a grade point average of at least 2.4, and
- Complete a course pattern requirement to include:
  a. Two transferable college courses (3 semester units or 4-5 quarter units each) in English composition; and
  b. One transferable college course (3 semester units or 4-5 quarter units) in Mathematical Concepts and Quantitative Reasoning; and
  c. Four transferable college courses (3 semester units or 4-5 quarter units each) chosen from at least two of the following subject areas: the arts and humanities, the social and behavioral sciences, the physical and biological sciences.

The current admission requirements for nonresident transfer applicants are the same as those for residents except that nonresidents must have a grade point average of 2.8 or higher in all transferable college course work.

In recent years, the number of applicants to many campuses and majors has greatly exceeded the spaces available. This increased competition means the University may no longer be able to guarantee admission to all eligible students. When a campus has to choose among qualified students, it applies standards that are more demanding than the minimum requirements. Using a process called comprehensive review, admissions officers look beyond the required course work and grades to evaluate applicants’ academic achievements in light of the opportunities available to them and the capacity each student demonstrates to contribute to the intellectual life of the campus.

Admission Application Dates
To ensure consideration for admission to the campus of first choice, students are reminded to file a completed application form during the appropriate Priority Filing Period:

University of California, Berkeley and Merced
Fall Semester: File November 1-30
Spring Semester: File July 1-31
UC Berkeley application is accepted for the fall only

All Other University of California Campuses
Fall Quarter: File November 1-30
Winter Quarter: File July 1-31
Spring Quarter: File October 1-31

For the fall term, all majors and programs are open to new students. Check with the specific campus Admissions Office if applying for other than the fall term. Apply online, www.universityofcalifornia.edu/apply.
CSU General Education Distribution Requirements

<table>
<thead>
<tr>
<th>Area A: Communication &amp; Critical Thinking (9 Units Required)</th>
<th>Area B: Physical Universe and Its Life Forms (9 Units Required)</th>
<th>Area B: Physical Universe (continued)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose one course from each sub-group A1, A2 and A3</td>
<td>Choose one course from each sub-group B1, B2, &amp; B4</td>
<td></td>
</tr>
<tr>
<td>A1 ORAL COMMUNICATION (3 units required)</td>
<td>Note: Laboratory Activity—At least one of the courses from B1 through B2 must have a laboratory. Courses with a laboratory are bold face type.</td>
<td></td>
</tr>
<tr>
<td>SPE1A Essentials of Public Speaking</td>
<td>B1 PHYSICAL UNIVERSE (3 units required)</td>
<td>PHY2A College Physics I</td>
</tr>
<tr>
<td>SPE3 Intro. to Communications</td>
<td>ABT90 Soil Science</td>
<td>PHY2B College Physics II</td>
</tr>
<tr>
<td>SPE5 Intro. to Organizational Communication</td>
<td>AST1 Introduction to Astronomy</td>
<td>PHY4A General Physics/Mechanics</td>
</tr>
<tr>
<td>A2 WRITTEN COMMUNICATION (3 units required)</td>
<td>CHM1A General Chemistry I</td>
<td>PHY4B General Physics/Electricity &amp; Magnetism</td>
</tr>
<tr>
<td>ENGLA College Composition and Reading</td>
<td>CHM1B General Chemistry II</td>
<td>PHY4C General Physics/Waves, Heat, Light and Modern Physics</td>
</tr>
<tr>
<td>ENGLB College Literature and Composition</td>
<td>CHM12A Organic Chemistry I</td>
<td>PHY10 Introduction to Physics</td>
</tr>
<tr>
<td>A3 CRITICAL THINKING (3 units required)</td>
<td>CHM12B Organic Chemistry II</td>
<td></td>
</tr>
<tr>
<td>ENGL2 Critical Thinking and Writing</td>
<td>CHM22 The Science of Chemistry</td>
<td></td>
</tr>
<tr>
<td>PHL15 Critical Thinking and Logic</td>
<td>CHM23 Organic and Biological Chemistry for Health Sciences</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHM60 Principles of Chemistry</td>
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<tr>
<td></td>
<td>GEG1 Introduction to Geography: Physical Elements</td>
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<tr>
<td></td>
<td>GEL1 Dynamic Earth</td>
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</tr>
<tr>
<td></td>
<td>GEL2 Introduction to Geology</td>
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</tr>
<tr>
<td></td>
<td>GEL5 History of the Earth</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GEL25 Environmental Geology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MET1 Meteorology-Weather and Climate</td>
<td></td>
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<tr>
<td></td>
<td>OCN1 Oceanography</td>
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</tr>
</tbody>
</table>

5. The General Education-Breadth Requirements apply to and are accepted at the following state universities: Bakersfield, Channel Islands, Chico, Dominguez Hills, Fresno, Fullerton, Hayward, Humboldt, Long Beach, Los Angeles, Monterey Bay, Northridge, Pomona, Sacramento, San Bernardino, San Diego, San Francisco, San Jose, San Luis Obispo, San Marcos, Sonoma, and Stanislaus.

6. A grade of “C” or better must be earned in Areas A1, A2, A3, and B4.
Area B: Physical Universe (continued)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT90</td>
<td>Soil Science</td>
</tr>
<tr>
<td>ABT92</td>
<td>Plant Science</td>
</tr>
<tr>
<td>AST1L</td>
<td>Astronomy Laboratory</td>
</tr>
<tr>
<td>BIO1</td>
<td>Fund. Biological Concepts</td>
</tr>
<tr>
<td>BIO2</td>
<td>General Zoology</td>
</tr>
<tr>
<td>BIO3</td>
<td>General Botany</td>
</tr>
<tr>
<td>BIO5</td>
<td>Human Anatomy</td>
</tr>
<tr>
<td>BIO6L</td>
<td>Physiology Laboratory</td>
</tr>
<tr>
<td>BIO7</td>
<td>General Microbiology</td>
</tr>
<tr>
<td>BIO10</td>
<td>General Biology</td>
</tr>
<tr>
<td>BIO11</td>
<td>Introductory Human Anatomy and Physiology</td>
</tr>
<tr>
<td>BIO20</td>
<td>Field Biology/Natural Science</td>
</tr>
<tr>
<td>BIO27</td>
<td>Principles of Microbiology</td>
</tr>
<tr>
<td>BIO30</td>
<td>Marine Biology</td>
</tr>
<tr>
<td>BIO47</td>
<td>Ecology</td>
</tr>
<tr>
<td>CHM1A</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>CHM1B</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>CHM12A</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>CHM12B</td>
<td>Organic Chemistry II</td>
</tr>
<tr>
<td>CHM22</td>
<td>The Science of Chemistry</td>
</tr>
<tr>
<td>CHM23</td>
<td>Organic and Biological Chem. for Health Sciences</td>
</tr>
<tr>
<td>CHM60</td>
<td>Principles of Chemistry</td>
</tr>
<tr>
<td>GEL1</td>
<td>Dynamic Earth</td>
</tr>
<tr>
<td>GEL6</td>
<td>History of the Earth</td>
</tr>
<tr>
<td>PHY2A</td>
<td>College Physics I</td>
</tr>
<tr>
<td>PHY2B</td>
<td>College Physics II</td>
</tr>
<tr>
<td>PHY4A</td>
<td>General Physics/Mechanics</td>
</tr>
<tr>
<td>PHY4B</td>
<td>General Physics/Electricity and Magnetism</td>
</tr>
<tr>
<td>PHY4C</td>
<td>General Physics/Waves, Heat, Light, and Modern Physics</td>
</tr>
<tr>
<td>PHY10</td>
<td>Introduction to Physics</td>
</tr>
</tbody>
</table>

Area C: Arts, Literature, Philosophy & Foreign Language (9 units required)

Choose at least one course in the arts and one in humanities.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART1A</td>
<td>History of Art</td>
</tr>
<tr>
<td>ART1B</td>
<td>History of Art</td>
</tr>
<tr>
<td>ART1T</td>
<td>Art Appreciation</td>
</tr>
<tr>
<td>ENG50</td>
<td>Film Appreciation To 1960</td>
</tr>
<tr>
<td>ENG51</td>
<td>Film Appreciation from 1960 to the Present</td>
</tr>
<tr>
<td>MUS1A</td>
<td>Music Appreciation-Historical Perspective</td>
</tr>
<tr>
<td>MUS1B</td>
<td>Music Appreciation-Genre Perspective</td>
</tr>
<tr>
<td>MUS2</td>
<td>Music Fundamentals</td>
</tr>
<tr>
<td>MUS5</td>
<td>Ethnic Musics in the U.S.</td>
</tr>
<tr>
<td>MUS6</td>
<td>Hawaiian Music</td>
</tr>
<tr>
<td>MUS7</td>
<td>Jazz Appreciation</td>
</tr>
<tr>
<td>MUS50A</td>
<td>Harmony I</td>
</tr>
<tr>
<td>MUS50B</td>
<td>Harmony II</td>
</tr>
<tr>
<td>MUS52A</td>
<td>Harmony III</td>
</tr>
<tr>
<td>MUS52B</td>
<td>Harmony IV</td>
</tr>
<tr>
<td>PHO1</td>
<td>Introduction to Photography</td>
</tr>
<tr>
<td>THA1</td>
<td>Introduction to Theatre</td>
</tr>
<tr>
<td>THA3</td>
<td>History of the Theatre</td>
</tr>
</tbody>
</table>

Area D: Humanities (continued)

Choose at least one course in the arts and one in humanities.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COU81</td>
<td>American Sign Language II</td>
</tr>
<tr>
<td>COU83</td>
<td>American Sign Language III</td>
</tr>
<tr>
<td>ENG1B</td>
<td>College Literature &amp; Comp.</td>
</tr>
<tr>
<td>ENG10</td>
<td>Introduction to Linguistics</td>
</tr>
<tr>
<td>ENG17</td>
<td>The Contemporary Shakespeare</td>
</tr>
<tr>
<td>ENG22</td>
<td>Introduction to Poetry</td>
</tr>
<tr>
<td>ENG24</td>
<td>The Short Story</td>
</tr>
<tr>
<td>ENG25</td>
<td>American Indian Literature</td>
</tr>
<tr>
<td>ENG26</td>
<td>Chicano Literature</td>
</tr>
<tr>
<td>ENG31</td>
<td>Beginning Creative Writing/Introduction To Magazine Publishing</td>
</tr>
<tr>
<td>ENG32</td>
<td>Intermediate Creative Writing/Introduction to Magazine Publishing and Editing</td>
</tr>
<tr>
<td>ENG33</td>
<td>Advanced Creative Writing/Magazine Publishing and Editing</td>
</tr>
<tr>
<td>ENG41</td>
<td>Art of Steinbeck</td>
</tr>
<tr>
<td>ENG44A</td>
<td>World Literature I</td>
</tr>
<tr>
<td>ENG44B</td>
<td>World Literature II</td>
</tr>
<tr>
<td>ENG46A</td>
<td>Survey of English Literature I</td>
</tr>
<tr>
<td>ENG46B</td>
<td>Survey of English Literature II</td>
</tr>
<tr>
<td>ENG47A</td>
<td>Survey of American Literature I</td>
</tr>
<tr>
<td>ENG47B</td>
<td>Survey of American Literature II</td>
</tr>
<tr>
<td>ETH12</td>
<td>Chicano Cinema</td>
</tr>
<tr>
<td>FRN1</td>
<td>Elementary French</td>
</tr>
<tr>
<td>FRN2</td>
<td>Elementary French</td>
</tr>
<tr>
<td>FRN3</td>
<td>Intermediate French</td>
</tr>
<tr>
<td>FRN4</td>
<td>Intermediate French</td>
</tr>
</tbody>
</table>

American History & Institutions

Note: CSU graduation requires fulfillment of a U.S. History and Political Institutions requirement which may or may not be included in the general education package.

Student must complete one course:
1. History 21 or History 40 or History 17A or History 17B to satisfy the U.S. History requirement (US1); AND one course
2. Ethnic Studies 5 or Political Science 1 or Political Science 5 to satisfy the U.S. Constitution California State and local Government requirements (US2 and US3).

Students planning on transfer to a CSU campus are advised to complete a US History and Political Institution course as 6 units of the required 9 general education units from Area D.

Hartnell will certify both of these courses toward satisfying the Area D requirement.
## Area D: Social, Political & Economic Institutions (9 Units Required)

No more than two courses may be counted from any single classification. D1 through D0 (*see note)

### D1 ANTHROPOLOGY AND ARCHEOLOGY
- **ANT1** Intro. to Anthropology: Physical
- **ANT2** Intro. to Anthropology: Cultural
- **ANT3** Introduction to Archeology
- **ANT10** California Indians
- **ANT15** North American Indians
- **ANT20** Cultures of Mexico
- **SOC42** The Sociology of Minority Relations

### D2 ECONOMICS
- **BUS32** Introduction to Business
- **ECO1** Principles of Economics-Macro
- **ECO5** Principles of Economics-Micro

### D3 ETHNIC STUDIES
- **EDU1** Multicultural Perspectives of Education
- **ETH1** Introduction to Ethnic Studies
- **ETH2** Chicano Leadership
- **ETH3** Chicanos in American Society
- **ETH4** Chicano Culture
- **ETH5** Chicano Politics and the American Political System
- **ETH6** La Chicana
- **ETH25** American Indian Literature

### D4 GENDER STUDIES
- **ETH6** La Chicana
- **PSY36** Psychology of “La Mujer”
- **PSY42** Psychology of Women

### D5 GEOGRAPHY
- **GEG1** Introduction to Geography: Physical Elements
- **GEG2** Introduction to Geography: Cultural Elements
- **G54A** Western Civilization A
- **G54B** Western Civilization B
- **HIS5A** World History A
- **HIS5B** World History B
- **HIS6** History of Mexico
- **HIS10** History of California
- **HIS17A** United States A
- **HIS17B** United States B
- **HIS21** Social and Political Histories of the United States

### D6 HISTORY
- **HIS46A** Race and Ethnicity in American Hist A
- **HIS 46B** Race and Ethnicity in American Hist. B
- **HIS47** Religions of the World
- **HIS48** African American History and Culture
- **HIS49A** Chicano History A
- **HIS49B** Chicano History B
- **HIS51** Women in History

### D7 INTERDISCIPLINARY SOCIAL OR BEHAVIORAL SCIENCE
- **COU35** Intercultural Communication
- **PSY36** Psychology of “La Mujer”
- **PSY42** Psychology of Women
- **SPE8** Interpersonal Communication
- **SPE35** Intercultural Communication

### D8 POLITICAL SCIENCE, GOVERNMENT, AND LEGAL INSTITUTIONS
- **ETH5** Chicano Politics and the American Political System
- **HIS21** Social and Political Histories of the United States
- **POL1** American Political Institutions
- **POL2** Contemporary Governments Abroad
- **POL3** International Relations
- **POL5** Chicano Politics and the American Political System

### D9 PSYCHOLOGY
- **PSY2** General Psychology
- **PSY6** Research Methods in Psychology
- **PSY14** Child Psychology
- **PSY22** Abnormal Psychology
- **PSY33** Personal and Social Adjustment
- **PSY41** Psychology of Human Relations

### D0 SOCIOLOGY AND CRIMINOLOGY
- **ADJ1** Intro. To Administration of Justice
- **ADJ51** Criminology
- **SOC1** Introduction to Sociology
- **SOC5** Introduction to Social Problems
- **SOC41** Marriage and the Family
- **SOC42** The Sociology of Minority Relations

## Area E: Lifelong Understanding and Self Development (3 Units Required)

### E1 INTEGRATED ORGANISM
- **BIO2** Human Biology
- **COU23** Student Skills for Success: Career Development
- **COU27** Life Planning
- **FCS14** Child Development
- **FCS23** Nutrition
- **GEL25** Environmental Geology
- **HED2** Health Education
- **HED6** Multicultural Health Beliefs
- **PSY14** Child Psychology
- **PSY15** Human Sexuality
- **PSY33** Personal and Social Adjustment
- **PSY36** Psychology of “La Mujer”
- **PSY41** Psychology of Human Relations
- **PSY42** Psychology of Women
- **SOC5** Introduction to Social Problems
- **SOC 41** Marriage and the Family
INTERSEGMENタル GENERAL EDUCATION TRANSFER CURRICULUM (IGETC) FOR UC AND CSU

California Community college transfer students can use the Intersegmental General Education Transfer Curriculum (IGETC) to fulfill all lower division general education requirements at any California State University or many University of California (UC) campuses. Because the IGETC is accepted by both the CSU and UC, it is an excellent option for students who are undecided about the university system to which they plan to transfer. The IGETC requires completion of a minimum of 37 semester units of lower division with a C grade or better in each course.

Note: A few majors, such as nursing, engineering, sciences, and other technical majors, recommend students complete very specific coursework to meet general education and major preparation. Students should see a counselor and consult with the university campus to which they intend to apply to best determine which courses should be completed prior to transfer for these majors.

Intersegmental General Education Transfer Curriculum (IGETC) for the University of California or California State University 2009/10

The following Intersegmental General Education Transfer curriculum (IGETC) must be completed by all students who enrolled at Hartnell College for the first time beginning Fall of 1991 and who plan to transfer to the University of California or California State University.

Please consult with a counselor to see if IGETC is appropriate for your course of study.

Area 1 - English Communication
CSU – 3 courses required, one from each Group A, B, C.
UC – 2 courses required, one from each Group A, B.

Group A: Reading and Composition
(3 units required)

English 1A Composition and Reading

Group B: Critical Thinking-English Composition
(3 units required)

English 1B College Literature & Comp.
English 2 Critical Thinking & Writing

Group C: Oral Communication
(3 units required) (CSU Only)

Speech 1A Essentials of Public Speaking
Speech 3 Intro. to Communication

Area 2 - Mathematical Concepts and Quantitative Reasoning
(1 course, 3 semester units required)

**Math 2 Calculus for Managerial, Life, & Social Science
**Math 3A Analytic Geometry and Calculus I
Math 3B Analytic Geometry and Calculus II
Math 3C Analytic Geometry and Calculus III
Math 4 Linear Algebra
Math 5 Differential Equations
Math 10 Math for Liberal Arts
Math 12 Number Systems
Math 13 Elementary Statistics
Math 16 Finite Mathematics
Math 25 Pre-Calculus Mathematics

**Indicates that transfer credit may be limited by UC or CSU or both. Please consult with a counselor.

Area 3 - Arts and Humanities
Choose 3 courses (9.0 semester units or 12-15 quarter units), with at least one course from the Arts and one course from the Humanities.

Art Courses
Art 1A History of Art
Art 1B History of Art
Art 10 Art Appreciation
English 51 Film Appreciation 1960 to the Present
Music 1A Music Appreciation-Historical Perspective
Music 1B Music Appreciation-Genre Perspective
Music 2 Music Fundamentals
Music 5 Ethnic Musics in the United States

Music 6 Hawaiian Music
Music 50A Harmony I
Music 50B Harmony II
Music 52A Harmony III
Music 52B Harmony IV
Photo 1 Intro. to Photography
Th Arts 1 Intro. to Theatre
Th Arts 3 History of the Theatre

Humanities Courses
English 10 Introduction to Linguistics
English 17 The Contemporary Shakespeare
English 22 Intro. to Poetry
English 24 The Short Story
English 25 American Indian Literature
English 26 Chicano Literature
English 41 Art of Steinbeck
English 44A World Literature I
English 44B World Literature II

English 46A Survey of English Literature I
English 46B Survey of English Literature II
English 47A Survey of American Literature I
English 47B Survey of American Literature II
English 50 Film Appreciation to 1950
Eth Stu 12 Chicano Cinema
Eth Stu 25 American Indian Literature
History 4A Western Civil I
History 4B Western Civil II
History 5A World History A
History 5B World History B
History 6 History of Mexico
History 10 History of California
History 17A United States History I
History 17B United States History II
History 40 History of Women in the U.S.
History 47 Religions of the World
History 48 African-American History and Culture
History 49A Chicano History A
History 49B Chicano History B
History 51 Women in History
Japanese 11 Japanese Language and Culture II
Music 7 Jazz Appreciation
Philos 2 Introduction to Philosophy
Philos 6 Introduction to Philosophy: Greek to Medieval Period
Philos 8 Introduction to Philosophy: Renaissance to 20th Century Ethics
Philos 10
**Spanish 3S Intermediate Spanish
**Spanish 4S Intermediate Spanish
Spanish 35 Literatura chicana
IGETC GENERAL EDUCATION

Area 4 - Social & Behavioral Sciences

Courses from at least two disciplines (minimum 3 courses/9 semester units required).

- Admin 1 Intro to Admin Justice
- Admin 3 Concepts of Criminal Law
- Anthro 2 Intro to Anthropology: Cultural
- Anthro 3 Intro to Archaeology
- Anthro 10 California Indians
- Anthro 15 North American Indians
- Anthro 20 Cultures of Mexico
- Coun 35 Intercultural Communications
- Economics 1 Principles of Economics - Macro
- Economics 5 Principles of Economics - Micro
- Eth Studies 1 Introduction to Ethnic Studies
- Eth Studies 2 Chicano Leadership
- Eth Studies 3 Chicanos in American Society
- Eth Studies 4 Chicano Culture
- Eth Studies 5 Chicano Politics and the American Political System
- Eth Studies 6 La Chicana
- FCS 14 Child Development
- Geography 2 Intro to Geography: Cultural Elements
- History 5A World History A
- History 5B World History B
- History 6 History of Mexico
- History 21 Social and Political Histories of the United States
- History 40 History of Women in the U.S.
- History 46A Race and Ethnicity in American History A
- History 46B Race and Ethnicity in American History B
- Poli Sci 1 American Political Institutions
- Poli Sci 2 Contemporary Governments Abroad
- Poli Sci 3 Introduction to International Relations
- Poli Sci 5 Chicano Politics and the American Political System
- Psych 2 General Psychology
- Psych 14 Child Psychology
- Psych 22 Abnormal Psychology
- Psych 36 Psychology of “La Mujer”
- Psych 42 Psychology of Women
- Sociology 1 Introduction to Sociology
- Sociology 5 Intro to Social Problems
- Sociology 41 Marriage and the Family
- Sociology 42 The Sociology of Minority Relations
- Speech 8 Interpersonal Communications
- Speech 35 Intercultural Communications

Area 5 - Physical & Biological Sciences

(At least 2 courses, one of which is in Physical Science and one in Biological Science, at least one of which incorporates a laboratory, 7-9 semester units required.)

Physical Science Courses

All courses with a lab component are bold face type.

- AgBusTech 90 Soil Science
- Astronomy 1L Introduction to Astronomy
- Chemistry 1A General Chemistry I
- Chemistry 1B General Chemistry II
- Chemistry 12A Organic Chemistry I
- Chemistry 12B Organic Chemistry II
- Chemistry 22 The Science of Chemistry
- Geography 1 Intro to Geography: Physical Elements
- Geology 1 Dynamic Earth
- Geology 2 Introduction to Geology
- Geology 6 History of the Earth
- Geology 25 Environmental Geology
- Geology 36 California Geology
- Meteorology 1 Meteorology - Weather and Climate
- Oceanography 1 Oceanography
- Physics 2A College Physics I
- Physics 2B College Physics II
- Physics 4A General Physics/Mechanics
- Physics 4B General Physics/Electricity and Magnetism
- Physics 4C General Physics/Waves, Heat, Light and Modern Physics
- Physics 10 Introduction to Physics

Area 4 and Area 5 courses can be used to complete both IGETC Areas 4 and 5 in one semester, but at least one course must be from Area 5.

Area 6

Languages Other Than English (LOTE)

Complete 2 years of the same foreign language of high school level work with a grade of “C” or better OR earn a score of 3 or higher on the Foreign Language Advanced Placement Test OR 550 on the College Board Achievement Test in Foreign Languages OR complete one course below:

- CUS 80 American Sign Language I
- CUS 81 American Sign Language II
- CUS 83 American Sign Language III
- French 1 Elementary French
- French 2 Elementary French
- French 3 Intermediate French
- French 4 Intermediate French
- Japanese 10 Japanese Language and Culture I
- Japanese 11 Japanese Language and Culture II
- Spanish 1 Elementary Spanish
- Spanish 1B Elementary Spanish
- Spanish 1S Elementary Spanish Speakers
- Spanish 1X Spanish for Chicano Students
- Spanish 2 Elementary Spanish
- Spanish 2S Elementary Spanish Speakers
- Spanish 3 Intermediate Spanish
- Spanish 3S Intermediate Spanish Speakers
- Spanish 4 Intermediate Spanish
- Spanish 4S Intermediate Spanish Speakers

Please note: Courses listed in multiple areas shall not be certified in more than one area except for courses in Languages other than English, which can be certified in both areas 3 and 6.

Hartnell College Catalog – 2009/10
ADMINISTRATION OF JUSTICE—CORRECTIONAL SCIENCE—ASSOCIATE OF SCIENCE DEGREE

PROGRAM DESCRIPTION

The Administration of Justice programs include the theory and practice of law enforcement, correctional science and paralegal/legal assistantship. Law enforcement courses focus on police activities including effective patrol services to the public. Correctional science courses instruct on the incarceration process as well as rehabilitation of the offender. Paralegal/legal assistantship courses overview the preparation of cases for court under the supervision of an attorney.

Administration of Justice offers a wide range of career opportunities, including, police officer or deputy sheriff, correctional officer, probation officer, parole agent and paralegal. Working professionals in criminal justice and corrections can earn significant pay increases by obtaining an Associate’s Degree in Administration of Justice. Courses in Administration of Justice also prepare students for transfer into four-year degree programs in criminal justice and paralegal.

Students who have official college transcripts from an approved accredited college proving they have successfully completed a California POST Basic Police Academy, or official documents proving successful completion of a California Basic Correctional Officer Academy or a California Highway Patrol Academy shall receive credit for ADJ 1 and all major elective courses necessary for the Criminal Justice or Correctional Science Certificate and Degree program.

As a result of ongoing changes in technology, the need to expand competencies, and changing transfer requirements, certificate and degree requirements may also change. If you note changes in degrees or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty on how best to complete the program in which you are enrolled.

FOR MORE INFORMATION, CONTACT:  Lindsey Bertomen at 831-755-6742, bertomen@hartnell.edu, CAB 207  Lisa Storm at 831-755-6745, lstorm@hartnell.edu, CAB 218

PROGRAM OUTCOMES

Upon successful completion of the Administration of Justice, Correctional Science program, a student should be able to:

- analyze the United States legal system, describing the sources of laws, the branches of government, and the federal and state court systems.
- analyze cases to ascertain legal precedents and apply them to hypothetical fact patterns in corrections.
- demonstrate effective law enforcement report writing, correctional interviewing, and correctional counseling skills.
- compare and contrast legal and illegal narcotics and dangerous drugs.
- ascertain the appropriate federal, state, or administrative laws applicable to employees working in the correctional institution.

A minimum of 60.0 semester units with a grade of ‘C’ or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>ADJ-1</td>
<td>Introduction to Administration of Justice</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ADJ-3</td>
<td>Concepts of Criminal Law</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ADJ-11</td>
<td>Law Enforcement Report Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ADJ-12</td>
<td>Legal Aspects of Corrections</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ADJ-21A</td>
<td>Narcotics and Dangerous Drugs</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ADJ-22</td>
<td>Correctional Interviewing and Counseling</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ADJ-50</td>
<td>Introduction to Correctional Science</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ADJ-61</td>
<td>Control and Supervision in Corrections</td>
<td>3.0</td>
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<table>
<thead>
<tr>
<th>RESTRICTED MAJOR ELECTIVES (Select a minimum of 9.0 units from the following)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>ADJ-10</td>
<td>Juvenile Procedures</td>
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<td>Restricted Major Elective</td>
<td>ADJ-33</td>
<td>Constitutional Law for Criminal Justice Professionals</td>
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<tr>
<td>Restricted Major Elective</td>
<td>ADJ-45</td>
<td>Special Projects</td>
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<tr>
<td>Restricted Major Elective</td>
<td>ADJ-51</td>
<td>Criminology</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ADJ-99</td>
<td>Cooperative Work Experience</td>
<td>3.5</td>
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<tr>
<td>Restricted Major Elective</td>
<td>ADJ-102</td>
<td>PC 832 Armed and Firearms</td>
<td>3.5</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>PSY-30</td>
<td>Forensic Psychology</td>
<td>3.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ELECTIVES (Courses Numbered 1–199)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>Elective</td>
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<td>Elective</td>
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<th>REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
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<tbody>
<tr>
<td>Natural Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
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<td></td>
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</tr>
<tr>
<td>Humanities (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
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</tr>
<tr>
<td>Ethnic Groups in the United States (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
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<td></td>
</tr>
<tr>
<td>Language and Rationale (8 units)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENGL-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking (Select a minimum of 1 unit from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td>MAT-123</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

| SUBTOTAL UNITS (≥ 6.0) | SUBTOTAL UNITS (≥ 21.0) | DEGREE TOTAL UNITS (≥ 60.0) |

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam.

1 These courses satisfy both Major and General Education requirements

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
ADMINISTRATION OF JUSTICE—CORRECTIONAL SCIENCE—CERTIFICATE OF ACHIEVEMENT

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of "C" or better must be maintained in all certificate-applicable units.

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<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
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<tr>
<td>Required Major Course</td>
<td>MAT-201*</td>
<td>Prealgebra</td>
<td>3.0</td>
</tr>
</tbody>
</table>

TOTAL UNITS (≥ 27.0)

*Eligibility for MAT-121 or completion of any math in which MAT-201 is a prerequisite with a grade of "C" or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.

ADMINISTRATION OF JUSTICE—CRIMINAL JUSTICE—CERTIFICATE OF ACHIEVEMENT

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of "C" or better must be maintained in all certificate-applicable units.

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<td>Introduction to Administration of Justice</td>
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<tr>
<td>Required Major Course</td>
<td>ADJ-2</td>
<td>Community Relations: Multicultural Diversity/Discrimination</td>
<td>3.0</td>
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<td>ADJ-3</td>
<td>Concepts of Criminal Law</td>
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<td>Required Major Course</td>
<td>ADJ-4</td>
<td>Criminal Evidence</td>
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TOTAL UNITS (≥ 24.0)

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ADMINISTRATION OF JUSTICE—CRIMINAL JUSTICE—ASSOCIATE OF SCIENCE DEGREE

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PROGRAM OUTCOMES

Upon successful completion of the Administration of Justice, Criminal Justice program, a student should be able to:

- analyze the United States legal system, describing the sources of law, the branches of government, and the federal and state court systems.
- analyze cases to ascertain legal precedents and apply them to hypothetical fact patterns.
- demonstrate effective law enforcement report writing skills.
- compare and contrast legal and illegal narcotics and dangerous drugs.
- select and apply the appropriate peacekeeping strategy in a multicultural community.

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

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<td>ADJ-8</td>
<td>Criminal Investigation</td>
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<td>ADJ-9</td>
<td>Juvenile Procedures</td>
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<td>ADJ-30</td>
<td>Sexual Assault Investigation</td>
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<td>ADJ-33</td>
<td>Constitutional Law for Criminal Justice Professionals</td>
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<td>ADJ-48</td>
<td>Special Projects</td>
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<td>ADJ-51</td>
<td>Criminology</td>
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<tr>
<td>ADJ-102</td>
<td>PC 832 Arrest and Firearms</td>
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ELECTIVES (Courses Numbered 1–199)

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<td>College Composition and Reading</td>
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</tr>
<tr>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
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</tr>
</tbody>
</table>

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam

† These courses are also Required Major Courses

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.

Hartnell College Catalog – 2009/10
## PROGRAM DESCRIPTION

The Administration of Justice programs include the theory and practice of law enforcement, correctional science and paralegal/legal assistantship. Law enforcement courses focus on police activities including effective patrol services to the public. Correctional science courses instruct on the incarceration process as well as rehabilitation of the offender. Paralegal/legal assistantship courses overview the preparation of cases for court under the supervision of an attorney.

Administration of Justice offers a wide range of career opportunities, including, police officer or deputy sheriff, correctional officer, probation officer, parole agent and paralegal. Working professionals in criminal justice and corrections can earn significant pay increases by obtaining an Associate’s Degree in Administration of Justice. Courses in Administration of Justice also prepare students for transfer into four-year degree programs in criminal justice and paralegal.

Students who have official college transcripts from an approved accredited college proving they have successfully completed a California POST Basic Police Academy, or official documents proving successful completion of a California Basic Correctional Officer Academy or a California Highway Patrol Academy shall receive credit for ADJ 1 and all major elective courses necessary for the Criminal Justice or Correctional Science Certificate and Degree program.

As a result of ongoing changes in technology, the need to expand competencies, and changing transfer requirements, certificate and degree requirements may also change. If you note changes in degrees or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty on how best to complete the program in which you are enrolled.

**FOR MORE INFORMATION, CONTACT:**
- Lisa Storm at 831-755-6745, lstorm@hartnell.edu, CAB 218
- Lindsey Bertomen at 831-755-6742, bertomen@hartnell.edu, CAB 207

## PROGRAM OUTCOMES

Upon successful completion of the Administration of Justice, Paralegal/Legal Assistantship program, a student should be able to:

- demonstrate effective legal research skills by selecting and utilizing the appropriate computer databases and legal encyclopedias.
- analyze cases to ascertain legal precedents and apply them to hypothetical fact patterns.
- demonstrate effective legal writing skills.
- prepare legal documents commonly used in criminal justice and paralegal.

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

### REQUIRED MAJOR COURSES

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJ-3</td>
<td>Concepts of Criminal Law</td>
<td>3.0</td>
</tr>
<tr>
<td>ADJ-5</td>
<td>Criminal Procedures</td>
<td>3.0</td>
</tr>
<tr>
<td>ADJ-25</td>
<td>Introduction to Paralegal/Legal Assistantship</td>
<td>3.0</td>
</tr>
<tr>
<td>ADJBUS-26</td>
<td>Contracts</td>
<td>3.0</td>
</tr>
<tr>
<td>ADJ-34</td>
<td>Civil Litigation</td>
<td>3.0</td>
</tr>
<tr>
<td>ADJ-38</td>
<td>Legal Research and Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>BUSCSS-109</td>
<td>Introduction to PC Applications</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (22.0)**

### RESTRICTED MAJOR ELECTIVES (Select a minimum of 9.0 units from the following)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJ-4</td>
<td>Criminal Evidence</td>
<td>3.0</td>
</tr>
<tr>
<td>ADJ-33</td>
<td>Constitutional Law for Criminal Justice Professionals</td>
<td>3.0</td>
</tr>
<tr>
<td>ADJ-35</td>
<td>Tort/Personal Injury Law</td>
<td>3.0</td>
</tr>
<tr>
<td>ADJ-39</td>
<td>Family Law</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS-18</td>
<td>BUS-18 Legal Environment of Business</td>
<td>3.0</td>
</tr>
<tr>
<td>RE-146</td>
<td>Legal Aspects of Real Estate</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (≥ 9.0)**

### ELECTIVES (Courses Numbered 1–199)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (≥ 8.0)**

### REQUIRED GENERAL EDUCATION COURSES

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic Groups in the United States</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language and Rationality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENG-1A College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</td>
<td>MAT-123 Communication and Analytical Thinking (Select a minimum of 1 unit from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td>6.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (≥ 21.0)**

**TOTAL UNITS (≥ 60.0)**

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam

*These courses are also Required Major Courses

**TRANSFER STUDENTS:** Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at [www.assist.org](http://www.assist.org). Please consult with a Hartnell College counselor to review transfer requirements.
AGRICULTURE—BUSINESS EMPHASIS—ASSOCIATE OF SCIENCE DEGREE
AGRICULTURE—PRODUCTION EMPHASIS—ASSOCIATE OF SCIENCE DEGREE

PROGRAM DESCRIPTION
The Agriculture program offers an Associate of Science degree and a Certificate of Achievement in Agriculture with an emphasis in either Agriculture Business or Agriculture Production. Courses in these areas provide students with skills valuable to businesses in the Central Coast's produce industry or with one of the many companies providing support services and products. Many of the courses are fully transferable to the California State University system. Company internships within the local produce industry are an important part of the program.

Many local employees got their start through the agriculture program at Hartnell College. The hands-on, practical approach helped and motivated many to find their place in a wide range of industry positions, such as pest control advisors and applicators, product managers, processing plant quality supervisors, agriculture equipment maintenance, sales of agriculture supplies and services, produce sales, labor contractors and many others. Come find your future in the dynamic industry of agriculture.

As a result of ongoing changes in technology, the need to expand competencies, and changing transfer requirements, certificate and degree requirements may also change. If you note changes in degrees or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty on how best to complete the program in which you are enrolled.

FOR MORE INFORMATION, CONTACT:
Neil Leford at 831-755-6941, nleford@hartnell.edu, TECH 17
Ko Cooper at 831-759-6088, kcooper@hartnell.edu, TECH 4
Steven Triano at 755-6961, striano@hartnell.edu, TECH 16

PROGRAM OUTCOMES
Upon successful completion of the Agriculture program, a student should be able to:
- demonstrate problem-solving techniques and critical thinking skills while engaged in job situations,
- prepare and deliver business documents and use math skills in appropriate form, format, and language essential for career success in an agriculture business setting,
- demonstrate professional and personal development of work habits and safety practices.

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT-110</td>
<td>Careers in Agriculture and Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>ABT-57</td>
<td>Agriculture Computer Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-56</td>
<td>Agriculture Laws &amp; Regulations</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-90</td>
<td>Soil Science</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-92</td>
<td>Plant Science</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-99</td>
<td>Cooperative Work Experience</td>
<td>3.0</td>
</tr>
</tbody>
</table>

CHOOSE A SINGLE AREA OF EMPHASIS: Complete 14.0 units in one of the areas of emphasis listed below

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT-49</td>
<td>Introduction to Agriculture Business</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-51</td>
<td>Agri-Business Management Project</td>
<td>2.0</td>
</tr>
<tr>
<td>ABT-62</td>
<td>Plant Science</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-54</td>
<td>Agriculture Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-160</td>
<td>Introduction to Agriculture</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS-1A</td>
<td>Accounting Principles (Financial)</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS-18</td>
<td>Legal Environment of Business</td>
<td>3.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT-94</td>
<td>Agriculture Enterprise Project</td>
<td>2.0</td>
</tr>
<tr>
<td>ABT-70</td>
<td>Introduction to Mechanized Agriculture</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-41</td>
<td>Pesticide Applicator Certification Training</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-63</td>
<td>Applied GPS Technology</td>
<td>4.0</td>
</tr>
<tr>
<td>ABT-96</td>
<td>Vegetable Crop Production</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-97</td>
<td>Vineyard Production &amp; Management</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-98</td>
<td>Fertilizers &amp; Plant Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-160</td>
<td>Introduction to Agriculture</td>
<td>3.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Hartnell College Catalog – 2009/10
**Agriculture—Business Emphasis—Certificate of Achievement**

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of "C" or better must be maintained in all certificate-applicable units.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT-110</td>
<td>Careers in Agriculture and Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>ABT-57</td>
<td>Agriculture Computer Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-58</td>
<td>Agriculture Laws &amp; Regulations</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-90</td>
<td>Soil Science</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-92</td>
<td>Plant Science</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-99</td>
<td>Cooperative Work Experience</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-101*</td>
<td>Intermediate Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>ESL-101*</td>
<td>English for Academic Purposes II</td>
<td>5.0</td>
</tr>
<tr>
<td>MAT-121**</td>
<td>Elementary Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 17.0)

**Choose a Single Area of Emphasis:** Complete 14.0 units in one of the areas of emphasis listed below

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT-51</td>
<td>Agri-Business Management Project</td>
<td>2.0</td>
</tr>
<tr>
<td>ABT-49</td>
<td>Introduction to Agriculture Business</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-52</td>
<td>Sales and Service in Agribusiness</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-53</td>
<td>Agribusiness Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-54</td>
<td>Agriculture Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-160</td>
<td>Introduction to Agriculture</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS-1A</td>
<td>Accounting Principles (Financial)</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS-18</td>
<td>Legal Environment of Business</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 14.0)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT-41</td>
<td>Pesticide Applicator Certification Training</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-70</td>
<td>Introduction to Mechanized Agriculture</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-67</td>
<td>Applied GPS Technology</td>
<td>4.0</td>
</tr>
<tr>
<td>ABT-93</td>
<td>Product Processing &amp; Cooling</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-94</td>
<td>Agriculture Enterprise Project</td>
<td>2.0</td>
</tr>
<tr>
<td>ABT-96</td>
<td>Vegetable Crop Production</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-97</td>
<td>Vineyard Production and Management</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-98</td>
<td>Fertilizers and Plant Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>ABT-160</td>
<td>Introduction to Agriculture</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 14.0)

TOTAL UNITS (≥ 31.0)

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*Eligibility for ENG-1A fulfills this requirement.

**Eligibility for MAT-123 or completion of any math in which MAT-121 is a prerequisite with a grade of "C" or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement."
ALCOHOL AND DRUG ABUSE COUNSELING—ASSOCIATE OF ARTS DEGREE (Pending Chancellor's Office Approval)

PROGRAM DESCRIPTION

The Hartnell College Associate Degree and Certificate Program in Alcohol and Drug Abuse Counseling provides students with the academic preparation needed for employment in the substance abuse field. The curriculum is designed to meet the California Association of Alcoholism and Drug Abuse Counselors (CAADAC) requirements and pending legislative regulations requiring 350 hours of approved alcohol and drug classroom education, 45 hours of supervised practicum and 255 hours of supervised work experience.

Students who wish to continue their course of study to a 4-year setting are recommended to complete the Associate in Arts Degree program, which includes both the general education requirements and major courses in Alcohol and Other Drug Counseling. Completion of additional requirements for transfer may be required. It is recommended that students take AOD courses in numeric order. AOD 1-9 must be completed before enrolling in AOD 10 (Chemical Dependency Practicum Seminar) and AOD 99 (Practicum in Chemical Dependency).

Career opportunities for certified Alcohol and Drug Counselors include: counselors in social model county residential treatment programs; counselors in pre-treatment, inpatient, outpatient, and after-care programs; counselors in hospital-based chemical dependency community prevention and education programs; recovery/relapse prevention counseling in the private sector; counselors in recovery home/sober living environments. California state laws require that individuals who are providing services in an alcohol or drug abuse setting be registered. Students may obtain a registration manual, which contains information on academic requirements, procedures, forms, examination schedules and fees by going to the CAADAC website (http://caadac.org) and clicking on "certification" where an order form and other information are provided.

For more information, contact: Carol Kimbrough at 831-755-6856, ckimbrough@hartnell.edu, CAB 308.

PROGRAM OUTCOMES

Upon successful completion of the Alcohol and Drug Abuse Counseling program, a student should be able to:

- demonstrate proficiency in each of the core functions and performance domains of substance abuse counselors.
- function as ethical and competent entry-level substance abuse counselors, with an understanding of and sensitivity to the diverse populations which they will serve.

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>AOD-1</td>
<td>Fundamentals of Chemical Dependency</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AOD-2</td>
<td>Pharmacology and Physiology of Alcohol and Other Drugs</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AOD-3</td>
<td>Intervention, Treatment and Recovery</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AOD-41</td>
<td>Counseling Diverse Populations</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AOD-5</td>
<td>Legal/Ethical Considerations and Professional Growth</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AOD-6</td>
<td>Prevention, Education and Relapse Prevention</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AOD-7</td>
<td>Individual Counseling Skills in Chemical Dependency</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AOD-8</td>
<td>Family and Group Counseling</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AOD-10</td>
<td>Chemical Dependency Practicum Seminar</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AOD-99</td>
<td>Practicum in Chemical Dependency</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BIO-11‡</td>
<td>Introduction to Human Anatomy &amp; Physiology</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PST-22</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>SUBTOTAL UNITS (38.0)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>✓ RESTRICTED MAJOR ELECTIVES (Select a minimum of 6.0 units from the following)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Electives</td>
<td>AOD-9 or</td>
<td>Co-Occurring Disorders or Abnormal Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Electives</td>
<td>PST-22</td>
<td>Co-Occurring Disorders or Abnormal Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>SUBTOTAL UNITS (6.0)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>✓ RECOMMENDED MAJOR ELECTIVES (Select from list; none required)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended Major Elective</td>
<td>PST-10</td>
<td>Introduction to Biological Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>PST-22</td>
<td>Abnormal Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>PST-33</td>
<td>Personal and Social Adjustment</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>PST-41</td>
<td>Psychology of Human Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>PST-42</td>
<td>Psychology of Women</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>SOC-5</td>
<td>Introduction to Social Problems</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>SOC-41</td>
<td>Marriage and the Family</td>
<td>3.0</td>
</tr>
<tr>
<td>ELECTIVES (Courses Numbered 1–199)</td>
<td>Course No.</td>
<td>Course Title</td>
<td>Units</td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUBTOTAL UNITS (≥27.0)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>✓ REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences</td>
<td>BIO-11‡</td>
<td>Introduction to Human Anatomy &amp; Physiology</td>
<td>(4.0)</td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences</td>
<td>PST-22</td>
<td>General Psychology</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Humanities</td>
<td>PST-41</td>
<td>Psychology of Human Relations</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Ethnic Groups in the United States</td>
<td>AOD-41</td>
<td>Counseling Diverse Populations</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENG-1A</td>
<td>College Reading and Composition</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</td>
<td>MAT-120</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
<tr>
<td>Communication and Analytical Thinking</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>SUBTOTAL UNITS (≥21.0)</td>
<td></td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>TOTAL UNITS (≥60.0)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*These courses satisfy both Major and General Education requirements

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
ANIMAL HEALTH TECHNOLOGY—ASSOCIATE OF SCIENCE DEGREE

PROGRAM DESCRIPTION
The Hartnell College Animal Health Technology Program offers a comprehensive program that focuses on skills and knowledge relating to veterinary medicine. The program is a demanding and academically challenging two-year course of study that requires a supplemental application for admission. AHT is designed for students preparing for jobs as Registered Veterinary Technicians. Students enrolled in the AHT Program will have opportunities to explore many aspects of veterinary medicine including shelter medicine, marine animal medicine/research, laboratory animal medicine/research, small and large animal medicine, and exotic animal medicine. Graduates receive an Associate in Science Degree in Animal Health Technology and are eligible to sit for State and National Board Examinations for exit as a Veterinary Technician. The AHT Program is not intended to be a pre-veterinary or veterinary medicine curriculum.

The demand for Registered Veterinary Technicians is high. Job opportunities for graduates include positions in companion and large animal private practice, clinical laboratories, pharmaceutical companies, education, marine animal medicine/research, government agencies, and the biomedical field.

As a result of ongoing changes in technology, the need to expand competencies, and changing transfer requirements, certificate and degree requirements may also change. If you note changes in degrees or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty on how best to complete the program in which you are enrolled.

FOR MORE INFORMATION, CONTACT: Sharon Radel at 831-755-6855, sradel@hartnell.edu, UNIT-D

PROGRAM OUTCOMES
Upon successful completion of the Animal Health Technology program, a student should be able to:

- demonstrate proficiency in safe direct veterinary nursing care to animals by using evidence-based practice in veterinary technology.
- utilize critical thinking skills to provide effective veterinary nursing care for a variety of species throughout their developmental stages.
- utilize effective communication skills in veterinary technology/client and professional relationships in the practice of veterinary medicine.
- demonstrate sound leadership principles and management skills, including delegation and supervision of veterinary nursing care being delivered by others.

A minimum of 60.0 semester units with a grade of "C" or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>AHT-101</td>
<td>Introduction to Animal Health</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AHT-102</td>
<td>Animal Care and Management I</td>
<td>4.5</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AHT-103</td>
<td>Comparative Anatomy and Physiology</td>
<td>6.5</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AHT-104</td>
<td>Comparative Pathology and Pharmacology</td>
<td>4.5</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AHT-105</td>
<td>Animal Care and Management—Large Animals</td>
<td>4.5</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AHT-106</td>
<td>Clinical Procedures I</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AHT-107</td>
<td>Clinical Procedures II</td>
<td>3.5</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AHT-108</td>
<td>Veterinary Practice and Interpersonal Skills</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AHT-109</td>
<td>Veterinary Clinical Pathology</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AHT-110</td>
<td>Diagnostic Radiology</td>
<td>4.5</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AHT-111</td>
<td>Surgical Assistance and Anesthesiology</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AHT-112</td>
<td>Clinical Seminar</td>
<td>4.5</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AHT-113</td>
<td>Current Veterinary Therapy in Small Animal Practice</td>
<td>2.5</td>
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<tr>
<td>Required Major Course</td>
<td>AHT-99</td>
<td>Clinical Externship in AHT Occupational Cooperative Work Experience in AHT</td>
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<tr>
<td>Required Major Course</td>
<td>AHT-114A</td>
<td>Introduction to Applied Animal Health Care</td>
<td>0.5</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AHT-114B</td>
<td>Applied Animal Health Care I</td>
<td>1.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AHT-114C</td>
<td>Applied Animal Health Care II</td>
<td>0.5</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BIO-10P</td>
<td>General Biology</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BIO-27</td>
<td>Principles of Microbiology</td>
<td>4.0</td>
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<tr>
<td>Required Major Course</td>
<td>BUS-180</td>
<td>Medical Terminology</td>
<td>3.0</td>
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<tr>
<td>Required Major Course</td>
<td>CHM-60 or CHM-22 or CHM-1A</td>
<td>Principles of Chemistry or The Science of Chemistry or General Chemistry I</td>
<td>4.0 (4.0) (4.0)</td>
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SUBTOTAL UNITS (69.0)

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<th>✓ RECOMMENDED MAJOR ELECTIVES (Select from list; none required)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended Major Elective</td>
<td>BIO-30</td>
<td>Marine Biology</td>
<td>4.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>BUS-32</td>
<td>Introduction to Business</td>
<td>3.0</td>
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SUBTOTAL UNITS

<table>
<thead>
<tr>
<th>✓ REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences</td>
<td>BIO-10P</td>
<td>General Biology</td>
<td>(4.0)</td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities (select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic Groups in the United States (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>Communication and Analytical Thinking</td>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
<tr>
<td>Communication and Analytical Thinking</td>
<td>LIB-5 or LIB-6</td>
<td>Information Competency</td>
<td>1.0</td>
</tr>
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SUBTOTAL UNITS (≥ 21.0)

TOTAL UNITS (≥ 60.0)

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a "C" or better or a score of 70% or greater on the mathematics competency exam
†These courses are also Required Major Courses

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.

Hartnell College Catalog – 2009/10
ART—ASSOCIATE OF ARTS DEGREE

PROGRAM DESCRIPTION

The study of art involves the understanding and appreciation of various cultural heritages and the development of skills in drawing, painting, design, weaving, jewelry and/or ceramics. The faculty of the art discipline are committed to making the arts of the past and present available to students through historical surveys and studio experience. The heritage of thought and skill, going beyond our immediate time and culture, will enrich students’ lives, broaden their personal view of the world and their improve their ability to communicate ideas through added knowledge and greater intercultural understanding.

The majority of these art courses prepare students for higher levels of study at a university. For detailed requirements for individual four-year institutions, students should contact the transfer institution and/or meet with a counselor for specific transfer course requirements in their major. Students can also access major and transfer information for California State Universities and University of California at www.assist.org.

Positions for which BA graduates in art are qualified include arts administrator, art critic, art dealer, ceramicist, industrial designer, display designer, designer, gallery director, historian, merchant, sculptor, muralist, or painter.

FOR MORE INFORMATION, CONTACT: Office of Academic Affairs and Accreditation at 831-770-7090, CAB 209

PROGRAM OUTCOMES

Upon successful completion of the Visual Arts program, a student should be able to:

- demonstrate effective technical proficiency in at least one medium of traditional visual art.
- structure visual information to produce images or objects of intermediate level aesthetic quality.
- interpret and produce art works that communicate intellectually and emotionally.
- demonstrate an intermediate knowledge of the history of art.
- demonstrate an awareness of the influence of art and artists on the lives of all individuals, cultures and societies.

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>✓</th>
<th>REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Required Major Course</td>
<td>ART-1A</td>
<td>History of Art A</td>
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</tr>
<tr>
<td></td>
<td>Required Major Course</td>
<td>ART-3</td>
<td>Drawing and Composition</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Required Major Course</td>
<td>ART-15A</td>
<td>Ceramics A</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Required Major Course</td>
<td>ART-12A</td>
<td>Design</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Required Major Course</td>
<td>PHO-1</td>
<td>Introduction to Photography</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Required Major Course</td>
<td>ART-1B</td>
<td>History of Art</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Required Major Course</td>
<td>ART-71</td>
<td>Introduction to 2D Digital Illustration</td>
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SUBTOTAL UNITS (18.0)

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<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Restricted Major Elective</td>
<td>ART-6A</td>
<td>Watercolors and Gouache</td>
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<tr>
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<td>Restricted Major Elective</td>
<td>ART-15B</td>
<td>Ceramics B</td>
<td>3.0</td>
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<tr>
<td></td>
<td>Restricted Major Elective</td>
<td>ART-33</td>
<td>Weaving</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Restricted Major Elective</td>
<td>ART-41A</td>
<td>Jewelry I</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Restricted Major Elective</td>
<td>ART-50</td>
<td>Gallery Management</td>
<td>3.0</td>
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SUBTOTAL UNITS (≥ 3.0)

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<td>Elective</td>
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<tr>
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<td>Elective</td>
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SUBTOTAL UNITS (≥ 11.0)

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<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Natural Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td>ART-1A</td>
<td>History of Art A</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Social &amp; Behavioral Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td>ART-1A</td>
<td>History of Art A</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Humanities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ethnic Groups in the United States (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Language and Rationale (9 Units)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A. Written Composition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>B. Communication and Analytical Thinking (Select a minimum of 1 unit from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 21.0)

TOTAL UNITS (≥ 60.0)

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam

‡ These courses are also Required Major Courses

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Hartnell College Catalog – 2009/10
ART—TWO-DIMENSIONAL EMPHASIS—CERTIFICATE OF ACHIEVEMENT
ART—THREE-DIMENSIONAL EMPHASIS—CERTIFICATE OF ACHIEVEMENT

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of "C" or better must be maintained in all certificate-applicable units.

<table>
<thead>
<tr>
<th>☑ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>ART-3</td>
<td>Drawing and Composition</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>Art-12A</td>
<td>Design</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART-15A</td>
<td>Ceramics A</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PHO-1</td>
<td>Introduction to Photo</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ENG-101* or ESL-101*</td>
<td>Intermediate Composition and Reading or English for Academic Purposes II</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Required Course</td>
<td>MAT-201**</td>
<td>Prealgebra</td>
<td>(3.0)</td>
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SUBTOTAL UNITS (12.0)

<table>
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<th>☑ RESTRICTED MAJOR ELECTIVES (Select 6.0 units from list)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>ART-1A</td>
<td>History of Art A</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-1B</td>
<td>History of Art B</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-10</td>
<td>Art Appreciation</td>
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SUBTOTAL UNITS (6.0)

<table>
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<tr>
<th>☑ RESTRICTED MAJOR ELECTIVES FOR TWO-DIMENSIONAL CERTIFICATE (Select 6.0 units from list)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>ART-6A</td>
<td>Watercolors and Gouache</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-6B</td>
<td>Oils</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-6C</td>
<td>Acrylics</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-50</td>
<td>Gallery Management</td>
<td>3.0</td>
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</tbody>
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SUBTOTAL UNITS (6.0)

<table>
<thead>
<tr>
<th>☑ RESTRICTED MAJOR ELECTIVES FOR THREE-DIMENSIONAL CERTIFICATE (Select 6.0 units from list)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>ART-15B</td>
<td>Ceramics A</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-100 or ART-101 or ART-102 or ART-103</td>
<td>Ceramics: European Folk Traditions or Ceramics: Chinese and Korean Traditions or Ceramics: Japanese Traditions or Ceramics: Pre-Columbian Traditions</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-41A</td>
<td>Jewelry A</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-41B</td>
<td>Jewelry B</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-33</td>
<td>Weaving as an Art Form</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-34</td>
<td>Advanced Weaving as an Art Form</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-50</td>
<td>Gallery Management</td>
<td>3.0</td>
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</table>

SUBTOTAL UNITS (6.0)

TOTAL UNITS for 2D (≥ 24.0)

<table>
<thead>
<tr>
<th>☑ RESTRICTED MAJOR ELECTIVES FOR THREE-DIMENSIONAL CERTIFICATE (Select 6.0 units from list)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>ART-33</td>
<td>Weaving as an Art Form</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-34</td>
<td>Advanced Weaving as an Art Form</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-50</td>
<td>Gallery Management</td>
<td>3.0</td>
</tr>
</tbody>
</table>

TOTAL UNITS for 3D (≥ 24.0)

*Eligibility for ENG-1A fulfills this requirement.

**Eligibility for MAT-121 or completion of any math in which MAT-201 is a prerequisite with a grade of "C" or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.
AUTO COLLISION REPAIR—ASSOCIATE OF SCIENCE DEGREE

PROGRAM DESCRIPTION

The Auto Collision Repair programs are designed to provide up-to-date training according to ICAR qualification standards. Students may prepare for entry-level positions in auto collision repair occupations and working professionals may upgrade their skills. Hartnell is certified for ICAR welding qualification testing.

As a result of ongoing changes in technology, the need to expand competencies, and changing transfer requirements, certificate and degree requirements may also change. If you note changes in degrees or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty on how best to complete the program in which you are enrolled.

FOR MORE INFORMATION, CONTACT: Valentin Rodriguez at 831-770-7078, vrodriguez@hartnell.edu, TECH 4

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>AUC-150 or AUC-150A and AUC-150B and AUC-150C</td>
<td>Introduction to Auto Collision Repair &amp; Refinishing or Introduction to Auto Collision Repair &amp; Refinishing (A, B, and C)</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUC-70 or AUC-70A and AUC-70B and AUC-70C</td>
<td>Spot Repair &amp; Refinishing or Spot Repair &amp; Refinishing (A, B, and C)</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUC-173 or AUC-173A and AUC-173B and AUC-173C</td>
<td>Auto Body Repair and Replacement or Auto Body Repair and Replacement (A, B, and C)</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUC-174A and AUC-174B and AUC-174C</td>
<td>Frame and Unibody Repair</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUC-76</td>
<td>Advanced Repair, Replacement and Refinishing</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-50</td>
<td>Introduction to Automotive Repair</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MEC-169</td>
<td>Hazardous Materials and Industrial Safety</td>
<td>1.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>WLD-50</td>
<td>Basic Welding</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 34.0)

<table>
<thead>
<tr>
<th>✓ ELECTIVES (Courses Numbered 1–199)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 5.0)

<table>
<thead>
<tr>
<th>✓ REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic Groups in the United States</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</td>
<td>MAT-123+</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 21.0)

TOTAL UNITS (≥ 60.0)

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam

‡ These courses are also Required Major Courses

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
AUTO COLLISION REPAIR—CERTIFICATE OF ACHIEVEMENT

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of “C” or better must be maintained in all certificate-applicable units.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>AUC-150 or AUC-150A and AUC-150B and AUC-150C</td>
<td>Introduction to Auto Collision Repair &amp; Refinishing</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUC-173 or AUC-173A and AUC-173B and AUC-173C</td>
<td>Auto Body Repair and Replacement</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUC-174</td>
<td>Frame and Unibody Repair</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUC-70 or AUC-70A and AUC-70B and AUC-70C</td>
<td>Spot Repair &amp; Refinishing</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUC-150A or AUC-150B and AUC-150C</td>
<td>Introduction to Auto Collision Repair &amp; Refinishing</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUC-70A or AUC-70B and AUC-70C</td>
<td>Spot Repair &amp; Refinishing</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUC-174A</td>
<td>Frame and Unibody Repair</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUC-70A or AUC-70B and AUC-70C</td>
<td>Spot Repair &amp; Refinishing</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUC-150B and AUC-150C</td>
<td>Spot Repair &amp; Refinishing</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUC-174B</td>
<td>Frame and Unibody Repair</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUC-174C</td>
<td>Frame and Unibody Repair</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUC-76</td>
<td>Advanced Repair, Replacement and Refinishing</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-50</td>
<td>Introduction to Automotive Repair</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MEC-169</td>
<td>Hazardous Materials and Industrial Safety</td>
<td>1.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>WLD-50</td>
<td>Basic Welding</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ENG-101* or ESL-101*</td>
<td>Intermediate Composition and Reading or Composition and Grammar for ESL</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-201**</td>
<td>Prealgebra</td>
<td>(3.0)</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 31.0)

*Eligibility for ENG-1A fulfills this requirement.

**Eligibility for MAT-121 or completion of any math in which MAT-201 is a prerequisite with a grade of “C” or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.
AUTOMOTIVE TECHNOLOGY—AUTOMOTIVE SHOP MANAGEMENT—ASSOCIATE OF SCIENCE DEGREE

PROGRAM DESCRIPTION

This certificate or degree prepares students for positions in management of automotive technology service and repair facilities. Management positions include shop supervisors and managers, insurance estimators, parts manager, and factory products representatives. Classes are designed to provide a broad exposure to industry standards and practices.

For detailed requirements for individual four-year institutions, students should contact the transfer institution and/or meet with a counselor for specific transfer course requirements in their major. Students can also access major and transfer information for California State Universities and University of California at www.assist.org.

As a result of ongoing changes in technology, the need to expand competencies, and changing certification or transfer requirements, certificate and degree requirements may also change. If you note changes in degrees or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty member on how best to complete the program in which you are enrolled.

FOR MORE INFORMATION, CONTACT: Valentin Rodriguez at 831-770-7078, vrodriguez@hartnell.edu, TECH 4

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.


<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>AUT-50</td>
<td>Introduction to Automotive Repair</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-51</td>
<td>Auto Engine Performance and Diagnostics</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-71</td>
<td>Automotive Brakes and Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-72</td>
<td>Fuel Systems and Emission Control</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-73</td>
<td>Automotive Electricity and Electronics</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-83</td>
<td>Automotive Wheel Alignment and Suspension</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-179</td>
<td>Automotive Business and Shop Management</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-110</td>
<td>Automotive Climate Control</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-32</td>
<td>Introduction to Business</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-43</td>
<td>Computer Systems and Information Literacy</td>
<td>4.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (39.0)

<table>
<thead>
<tr>
<th>✓ REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic Groups in the United States (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</td>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 21.0)

TOTAL UNITS (≥ 60.0)

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam.
AUTOMOTIVE TECHNOLOGY—AUTOMOTIVE SHOP MANAGEMENT—CERTIFICATE OF ACHIEVEMENT

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of "C" or better must be maintained in all certificate-applicable units.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>AUT-50</td>
<td>Introduction to Automotive Repair</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-51</td>
<td>Auto Engine Performance and Diagnostics</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-71</td>
<td>Auto Brakes Systems and Controls</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-72</td>
<td>Fuel Systems and Emissions Control</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-73</td>
<td>Automotive Electricity and Electronics</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-83</td>
<td>Automotive Wheel Alignment and Suspension</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-179</td>
<td>Automotive Business and Shop Management</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ENG-101*</td>
<td>Intermediate Composition and Reading or Composition and Grammar for ESL</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ESL-101*</td>
<td></td>
<td>(5.0)</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-123**</td>
<td>Intermediate Algebra</td>
<td>(5.0)</td>
</tr>
</tbody>
</table>

*Eligibility for ENG-1A fulfills this requirement.

**Completion of any math in which MAT-1231 is a prerequisite with a grade of "C" or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.
# AUTOMOTIVE TECHNOLOGY—GENERAL AUTOMOTIVE MECHANICS—ASSOCIATE OF SCIENCE DEGREE

## PROGRAM DESCRIPTION

This certificate or degree program prepares students for entry-level employment as automotive service and repair technicians. Basic automotive maintenance and service operations are stressed to allow students to be immediately productive on the job.

For detailed requirements for individual four-year institutions, students should contact the transfer institution and/or meet with a counselor for specific transfer course requirements in their major. Students can also access major and transfer information for California State Universities and University of California at www.assist.org.

**FOR MORE INFORMATION, CONTACT:** Valentin Rodriguez at 831-770-7078, vrodriguez@hartnell.edu, TECH 4

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A minimum of **60.0 semester** units with a grade of "C" or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

### REQUIRED MAJOR COURSES

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT-50</td>
<td>Introduction to Automotive Repair</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT-51</td>
<td>Auto Engine Performance and Diagnostics</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT-103</td>
<td>Automotive Engines</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT-71</td>
<td>Automotive Brakes and Controls</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT-72</td>
<td>Fuel Systems and Emissions</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT-73</td>
<td>Automotive Electricity and Electronics</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT-81</td>
<td>Automotive Drive Train</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT-82</td>
<td>Automatic Transmission and Transaxles</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT-83</td>
<td>Automotive Wheel Alignment and Suspension</td>
<td>4.0</td>
</tr>
<tr>
<td>CSS-43</td>
<td>Computer Systems and Information Literacy</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (40.0)**

### REQUIRED GENERAL EDUCATION COURSES

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

**Language and Rationality (9 Units)**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (≥ 21.0)**

**TOTAL UNITS (≥ 61.0)**

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam
AUTOMOTIVE TECHNOLOGY—GENERAL AUTOMOTIVE MECHANICS —CERTIFICATE OF ACHIEVEMENT

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of "C" or better must be maintained in all certificate-applicable units.

<table>
<thead>
<tr>
<th>REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>AUT-50</td>
<td>Introduction to Automotive Repair</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-51</td>
<td>Auto Engine Performance and Diagnostics</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-71</td>
<td>Auto Brakes Systems and Controls</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-72</td>
<td>Fuel Systems and Emissions</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-73</td>
<td>Auto Electricity and Electronics</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-83</td>
<td>Automotive Wheel Alignment and Suspension</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-103</td>
<td>Automotive Engines</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-43</td>
<td>Computer Systems and Information Literacy</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ENG-101* or ESL-101*</td>
<td>Intermediate Composition and Reading or Composition and Grammar for ESL</td>
<td>(3.0) or (5.0)</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-123**</td>
<td>Intermediate Algebra</td>
<td>(5.0)</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 40.0)

*Eligibility for ENG-1A fulfills this requirement.

**Completion of any math in which MAT-123 is a prerequisite with a grade of "C" or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.
AUTOMOTIVE TECHNOLOGY—HEAVY DUTY DIESEL TECHNOLOGY—TRANSPORTATION—ASSOCIATE OF SCIENCE DEGREE

PROGRAM DESCRIPTION

The Automotive Technology, and Heavy Duty Diesel Technology—Transportation program is designed to provide students with the skills and knowledge necessary to succeed as technicians in the automotive service and heavy duty diesel transportation industries. The curriculum provides hands-on learning experience, which allows each student to understand the basic theories of automotive and diesel transportation technology. Diagnosis and repair procedures performed on automotive and diesel equipment enables students to develop the skill levels required for placement in the automotive or heavy duty diesel technology industry.

This certificate option is for students who want technical knowledge and experience in the diesel technology field. The course work emphasizes diesel service management, as well as the theory and skills of refrigeration, electronic and mechanical fuel injection, chassis maintenance, vehicle inspection, tune-up, engine overhaul, transmission repair, brake service, and handling hazardous waste. The curriculum provides exposure to all facets of the industry with specific emphasis on problem solving and transferability of skills.

As a result of ongoing changes in technology, the need to expand competencies, and changing certification or transfer requirements, certificate and degree requirements may also change. If you note changes in degrees or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty on how best to complete the program in which you are enrolled.

FOR MORE INFORMATION, CONTACT:  Valentin Rodriguez at 831-770-7078, vrodriguez@hartnell.edu, TECH 4

A minimum of 60.0 semester units with a grade of ‘C’ or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>AUT-150</td>
<td>Introduction to Heavy Duty Diesel Technology</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-151</td>
<td>Heavy Duty Diesel Preventive Maintenance</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-152</td>
<td>Heavy Duty Diesel Electrical and Basic Electronics</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-153</td>
<td>Heavy Duty Diesel Brakes, Steering and Suspension</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-154</td>
<td>Heavy Duty Diesel Engine Performance and Diagnostics</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-155</td>
<td>Heavy Duty Diesel Climate Control</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-156</td>
<td>Heavy Duty Diesel Engine Rebuild</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-157</td>
<td>Heavy Duty Diesel Electronic Systems and Controls</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-158</td>
<td>Heavy Duty Diesel Power Drive Train</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-159</td>
<td>Heavy Duty Diesel Automatic Transmissions</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-43</td>
<td>Computer Systems and Information Literacy</td>
<td>4.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (39.0) 39.0

<table>
<thead>
<tr>
<th>✓ REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic Groups in the United States (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>A. Written Composition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</td>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
<tr>
<td>Communication and Analytical Thinking (Select a minimum of 1 unit from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 21.0) 21.0

TOTAL UNITS (≥ 60.0) 60.0

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam
AUTOMOTIVE TECHNOLOGY—HEAVY DUTY DIESEL TECHNOLOGY— TRANSPORTATION—CERTIFICATE OF ACHIEVEMENT

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of "C" or better must be maintained in all certificate-applicable units.

<table>
<thead>
<tr>
<th>REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>AUT-150</td>
<td>Introduction to Heavy Duty Diesel Technology</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-151</td>
<td>Heavy Duty Diesel Preventive Maintenance</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-152</td>
<td>Heavy Duty Diesel Electrical and Basic Electronics</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-153</td>
<td>Heavy Duty Diesel Brakes, Steering and Suspension</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-154</td>
<td>Heavy Duty Diesel Engine Performance and Diagnostics</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-155</td>
<td>Heavy Duty Diesel Climate Control</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-156</td>
<td>Heavy Duty Diesel Engine Rebuild</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-157</td>
<td>Heavy Duty Diesel Electronic Systems and Controls</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-158</td>
<td>Heavy Duty Diesel Power Drive Train</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUT-159</td>
<td>Heavy Duty Diesel Automatic Transmissions</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ENG-101*</td>
<td>Intermediate Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ESL-101*</td>
<td>Composition and Grammar for ESL</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-123**</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Eligibility for ENG-1A fulfills this requirement.

**Completion of any math in which MAT-123 is a prerequisite with a grade of "C" or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.
BEHAVIORAL SCIENCES—ASSOCIATE OF ARTS DEGREE

PROGRAM DESCRIPTION

The program in Behavioral Sciences represents an interdisciplinary group of studies encompassing the disciplines of anthropology, psychology, and sociology. It is designed as a general preparation for a career in human services such as social work, counseling, criminology, or education.

The program is based on the belief that it is important for an individual who plans to work with or for people to understand human beings as individuals (psychologically) within a social context (sociologically) which varies across cultures (anthropologically).

FOR MORE INFORMATION, CONTACT: Office of Academic Affairs and Accreditation at 831-770-7090, CAB 209

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>ANT-1 or ANT-2 Physical Anthropology or Introduction to Anthropology: Cultural</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PSY-2 General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>SOC-1 Introduction to Sociology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (9.0)**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>ANT-1 Physical Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ANT-2 Introduction to Anthropology: Cultural</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ANT-3 Introduction to Archaeology</td>
<td>3.0</td>
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<tr>
<td>Restricted Major Elective</td>
<td>ANT-10 California Indians</td>
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<tr>
<td>Restricted Major Elective</td>
<td>ANT-15 North American Indians</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>PSY-14 Child Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>PSY-15 Human Sexuality</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>PSY-22 Abnormal Psychology</td>
<td>3.0</td>
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<tr>
<td>Restricted Major Elective</td>
<td>PSY-41 Psychology of Human Relations</td>
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<td>Restricted Major Elective</td>
<td>SOC-5 Introduction to Social Problems</td>
<td>3.0</td>
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<tr>
<td>Restricted Major Elective</td>
<td>SOC-41 Marriage &amp; the Family</td>
<td>3.0</td>
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<tr>
<td>Restricted Major Elective</td>
<td>SOC-42 The Sociology of Minority Relations</td>
<td>3.0</td>
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</table>

**SUBTOTAL UNITS (≥ 9.0)**

ELECTIVES (Courses Numbered 1–199)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
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<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (≥ 21.0)**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required General Education Courses</td>
<td>Natural Sciences</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social &amp; Behavioral Sciences (Select one course from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Humanities (Select one course from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ethnic Groups in the United States (Select one course from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Written Composition ENG-1A College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Communication and Analytical Thinking MAT-123* Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (≥ 21.0)**

**TOTAL UNITS (≥ 60.0)**

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam

‡These courses are also Required Major Courses

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
Upon successful completion of the Biology program, a student should be able to:

- apply the scientific method to problem solving, devising a research plan, and evaluating data and findings.
- describe the structure and function of biological molecules, cells and organelles, and tissues and organ systems of plants and animals.
- apply the principles of heredity at the molecular, cellular, and organismal levels.
- explain the mechanism and evidence of evolution through natural selection.
- apply taxonomic principles to the classification of organisms.
- describe the flow of energy within organisms and within ecosystems.

A minimum of 60.0 semester units with a grade of "C" or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

**PROGRAM DESCRIPTION**

The Biology program offers courses that are intended to create interest and enrichment through the study of living organisms and the basic biological principles. The major courses provide a strong background in the biological sciences for students transferring to four-year institutions who are interested in careers such as agriculture, health, research, and teaching. Prerequisite courses for nursing and other allied health programs are also offered.

For detailed requirements for individual four-year institutions, students should contact the transfer institution and/or meet with a counselor for specific transfer course requirements in their major.

**FOR MORE INFORMATION, CONTACT:**
- Alexander Edens at 831-770-7055, aedens@hartnell.edu, MER 14
- Jeffery Hughey at 831-770-7054, jhughey@hartnell.edu, MER 14
- Ann Wright at 831-770-6112, awright@hartnell.edu, MER 14

**PROGRAM OUTCOMES:**

Upon successful completion of the Biology program, a student should be able to:

1. apply the scientific method to problem solving, devising a research plan, and evaluating data and findings.
2. describe the structure and function of biological molecules, cells and organelles, and tissues and organ systems of plants and animals.
3. apply the principles of heredity at the molecular, cellular, and organismal levels.
4. explain the mechanism and evidence of evolution through natural selection.
5. apply taxonomic principles to the classification of organisms.
6. describe the flow of energy within organisms and within ecosystems.

A minimum of 60.0 semester units with a grade of "C" or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>BIO-1</td>
<td>Fundamental Biological Concepts</td>
<td>5.0</td>
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<tr>
<td>Required Major Course</td>
<td>BIO-2</td>
<td>General Zoology</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BIO-3</td>
<td>General Botany</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CHM-1A</td>
<td>General Chemistry</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CHM-1B</td>
<td>General Chemistry</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-1A</td>
<td>Elementary Statistics</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-25B</td>
<td>Pre-Calculus</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PHY-2A/2B</td>
<td>College Physics</td>
<td>8.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PHY-4A/4B/4C</td>
<td>College Physics</td>
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Subtotal Units (≥ 28.0)

<table>
<thead>
<tr>
<th>✓ RECOMMENDED MAJOR ELECTIVES (Select from list; none required)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended Major Elective</td>
<td>BIO-7</td>
<td>General Microbiology</td>
<td>5.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>BIO-45</td>
<td>Special Projects</td>
<td>1.0-3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>CHM-12A</td>
<td>Organic Chemistry I</td>
<td>5.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>CHM-12B</td>
<td>Organic Chemistry II</td>
<td>5.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>MAT-2</td>
<td>Calculus for Managerial, Life, &amp; Social Sciences</td>
<td>4.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>MAT-3A</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>MAT-3B</td>
<td>Analytic Geometry and Calculus II</td>
<td>4.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>MAT-3C</td>
<td>Analytic Geometry and Calculus III</td>
<td>4.0</td>
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</table>

Subtotal Units (Count with Electives)

<table>
<thead>
<tr>
<th>✓ ELECTIVES (Courses Numbered 1–199)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Subtotal Units (≥ 6.0)

<table>
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<tr>
<th>✓ REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences</td>
<td>CHM-1A</td>
<td>General Chemistry</td>
<td>(5.0)</td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic Groups in the United States</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language and Rationality (9 units)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</td>
<td>MAT-13A</td>
<td>Elementary Statistics</td>
<td>(5.0)</td>
</tr>
<tr>
<td>Communication and Analytical Thinking</td>
<td>MAT-25A</td>
<td>Pre-Calculus</td>
<td>(4.0)</td>
</tr>
</tbody>
</table>

Subtotal Units (≥ 26.0)

Total Units (≥ 68.0)

† These courses are also Required Major Courses

**TRANSFER STUDENTS:** Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
BUSINESS ADMINISTRATION—ASSOCIATE OF SCIENCE DEGREE

PROGRAM DESCRIPTION

The Business programs promote the economic development of the community; provide for lifelong learning and academic excellence through course content, application, and technology; serve diverse populations; encourage positive work ethic; and meet workforce needs through skills development, training, and personal growth.

The Business Administration program prepares students with the lower-division coursework required at most universities for advancement to upper-division coursework for a Bachelor's Degree with a major in Business Administration.

For detailed requirements for individual four-year institutions, students should contact the transfer institution and/or meet with a counselor for specific transfer course requirements in their major.

FOR MORE INFORMATION, CONTACT:  
Phil Adams at 831-755-6741, padams@hartnell.edu, CAB 216  
Robert Maffei at 831-755-6744, rmaffei@hartnell.edu, CAB 208  
Carol Thole at 831-755-831-6852, cthole@hartnell.edu, CAB 222B

PROGRAM OUTCOMES

Upon successful completion of the Business Administration program, a student should be able to:

- define information needs, identify the scope and level of information needed, and access information effectively and efficiently using appropriate electronic tools in a business environment to make sound decisions.
- interpret, analyze, and use quantitative and logical reasoning to evaluate and solve business problems.

A minimum of 60.0 semester units with a grade of "C" or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS-1A</td>
<td>Accounting Principles—Financial</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS-1B</td>
<td>Accounting Principles—Financial/Management</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS-16</td>
<td>Legal Environment of Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS-32</td>
<td>Introduction to Business</td>
<td>3.0</td>
</tr>
<tr>
<td>CSS-43</td>
<td>Computer Systems and Information Literacy</td>
<td>4.0</td>
</tr>
<tr>
<td>ECO-1F</td>
<td>Principles of Economics—Micro</td>
<td>3.0</td>
</tr>
<tr>
<td>ECO-5</td>
<td>Principles of Economics—Macro</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT-13P</td>
<td>Elementary Statistics</td>
<td>5.0</td>
</tr>
<tr>
<td>BUS/SPE-6P</td>
<td>Introduction to Organizational Communication</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (21.0)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS-30</td>
<td>Students in Free Enterprise (SIFE)</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT-16</td>
<td>Finite Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT-2</td>
<td>Calculus for Managerial, Life, and Social Sciences</td>
<td>4.0</td>
</tr>
<tr>
<td>SOC-5</td>
<td>Introduction to Social Problems</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS-17A or 17B</td>
<td>United States History A or United States History B</td>
<td>3.0</td>
</tr>
<tr>
<td>POL-1</td>
<td>American Political Institutions</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-2</td>
<td>Critical Thinking and Writing</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (Count with Electives) (21.0)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Elective</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elective</td>
<td></td>
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<tr>
<td></td>
<td>Elective</td>
<td></td>
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<tr>
<td></td>
<td>Elective</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elective</td>
<td></td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 16.0)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT-13P</td>
<td>Elementary Statistics</td>
<td>5.0</td>
</tr>
<tr>
<td>BUS/SPE-6P</td>
<td>Introduction to Organizational Communication</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 23.0)

TOTAL UNITS (≥ 60.0)

These courses are also Required Major Courses

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
BUSINESS OFFICE TECHNOLOGY—ACCOUNTING EMPHASIS—ASSOCIATE OF SCIENCE DEGREE
(Pending Chancellor’s Office Approval)

BUSINESS OFFICE TECHNOLOGY—INFORMATION PROCESSING EMPHASIS—ASSOCIATE OF SCIENCE DEGREE

PROGRAM DESCRIPTION

The Business Office Technology programs promote the economic development of the community; provide for lifelong learning and academic excellence through course content, application, and technology; serve diverse populations; encourage positive work ethic; and meet workforce needs through skills development, training, and personal growth.

The Business Office Technology programs offer training in keyboarding, office software applications, filing and records management, accounting (Accounting Emphasis), customer service, and business English and math applications. Students are prepared for career opportunities in administrative support, bookkeeping and data entry, customer service and other entry-level office positions.

As a result of ongoing changes in technology, the need to expand competencies, and changing transfer requirements, certificate and degree requirements may also change. If you note changes in degrees or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty on how best to complete the program in which you are enrolled.

FOR MORE INFORMATION, CONTACT:
Peter Calvert at 831-755-6747, pcalvert@hartnell.edu, CAB 212
Kathy Mendelsohn at 831-755-6743, kmendelsohn@hartnell.edu, CAB 214
Carol Thole at 755-831-6852, cthole@hartnell.edu, CAB 222B

PROGRAM OUTCOMES

Upon successful completion of the Business Office Technology program, a student should be able to:

- demonstrate proficiency in selecting and using appropriate business software application and tools.
- prepare and deliver business documents and presentations in appropriate form, format, and language.
- collaborate effectively in teams to solve problems and make decisions.

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>BUS-5/SPE-54</td>
<td>Introduction to Organizational Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS/CSS-109</td>
<td>Introduction to PC Applications</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-128</td>
<td>Professionalism in the Workplace</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-129</td>
<td>Practical Customer Service Skills</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-131</td>
<td>Business English</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-172</td>
<td>Machine Calculations on the Microcomputer</td>
<td>1.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-173</td>
<td>Filing Procedures and Records Management</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-190</td>
<td>Professional Development and Career Management</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-194</td>
<td>Human Relations in Business</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>SUBTOTAL UNITS (23.0)</strong></td>
<td></td>
<td></td>
<td></td>
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</table>

CHOSE A SINGLE AREA OF EMPHASIS: Complete all units in one of the areas of emphasis listed below

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES (ACCOUNTING EMPHASIS)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>BUS-110 or BUS-110A and BUS-110B</td>
<td>Beginning Keyboarding and Document Formatting</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-150.25</td>
<td>Electronic Spreadsheets</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-152</td>
<td>Introduction to Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-154</td>
<td>Computerized Accounting—QuickBooks</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>SUBTOTAL UNITS (13.0)</strong></td>
<td></td>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES (INFORMATION PROCESSING EMPHASIS)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>BUS-111</td>
<td>Intermediate Office Skills</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-140A &amp; B</td>
<td>Keyboarding Speed and Accuracy</td>
<td>1.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-150.15</td>
<td>Word Processing</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-175</td>
<td>Business Communications</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-177</td>
<td>Proofreading and Editing Skills</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>SUBTOTAL UNITS (13.0)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>✓ RECOMMENDED MAJOR ELECTIVES (Select from list; none required)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended Major Elective</td>
<td>BUS-30</td>
<td>Students in Free Enterprise (SIFE)</td>
<td>1.0-3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>BUS-32</td>
<td>Introduction to Business</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>BUS-151</td>
<td>Business Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>SUBTOTAL UNITS (Count with Electives)</strong></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>✓ ELECTIVES (Courses Numbered 1–199)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SUBTOTAL UNITS (≥ 7.0)</strong></td>
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</tbody>
</table>

Hartnell College Catalog – 2009/10
### REQUIRED GENERAL EDUCATION COURSES

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Natural Sciences</strong> (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Social &amp; Behavioral Sciences</strong> (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Humanities</strong> (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ethnic Groups in the United States</strong> (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Language and Rationale (9 Units)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENG-1A College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</td>
<td>MAT-123* Intermediate Algebra</td>
<td>5.0</td>
</tr>
<tr>
<td>Communication and Analytical Thinking</td>
<td>BUS-5/SPE-5‡ Introduction to Organizational Communication</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (≥ 21.0)**

**TOTAL UNITS (≥ 60.0)**

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam

‡ These courses are also Required Major Courses

**TRANSFER STUDENTS**: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at [www.assist.org](http://www.assist.org). Please consult with a Hartnell College counselor to review transfer requirements.
BUSINESS OFFICE TECHNOLOGY—ACCOUNTING EMPHASIS—CERTIFICATE OF ACHIEVEMENT

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of "C" or better must be maintained in all certificate-applicable units.

<table>
<thead>
<tr>
<th>REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>BUS/CSS-109</td>
<td>Introduction to PC Applications</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-110 or BUS-110A and BUS-110B</td>
<td>Beginning Keyboarding and Formatting</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-128</td>
<td>Professionalism in the Workplace</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-129</td>
<td>Practical Customer Service Skills</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-131</td>
<td>Business English</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-150.25</td>
<td>Electronic Spreadsheets</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-152</td>
<td>Introduction to Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-154</td>
<td>Computerized Accounting</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-155</td>
<td>Machine Calculations on the Microcomputer</td>
<td>1.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-156</td>
<td>Filing Procedures and Records Management</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-157</td>
<td>Professional Development and Career</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ENG-101* or ESL-101*</td>
<td>Intermediate Composition and Reading or English for Academic Purposes II</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-152**</td>
<td>Business Mathematics</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL UNITS (≥ 30.0)

*Eligibility for ENG-1A fulfills this requirement.

**Eligibility for MAT-123 or completion of any math in which MAT-121 is a prerequisite with a grade of "C" or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.
**BUSINESS OFFICE TECHNOLOGY—INFORMATION PROCESSING EMPHASIS—CERTIFICATE OF ACHIEVEMENT**

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of "C" or better must be maintained in all certificate-applicable units.

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<th>REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>BUS/CSS-109</td>
<td>Introduction to PC Applications</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-111</td>
<td>Intermediate Office Skills</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-128</td>
<td>Professionalism in the Workplace</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-129</td>
<td>Practical Customer Service Skills</td>
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<td>Business English</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-140A &amp; B</td>
<td>Keyboarding Speed and Accuracy</td>
<td>1.0</td>
</tr>
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<td>Required Major Course</td>
<td>BUS-150.15</td>
<td>Word Processing</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-172</td>
<td>Machine Calculations</td>
<td>1.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-173</td>
<td>Filing Procedures and Records Management</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-177</td>
<td>Proofreading and Editing Skills</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-190</td>
<td>Professional Development and Career Management</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ENG-101* or ESL-101*</td>
<td>Intermediate Composition and Reading or English for Academic Purposes II</td>
<td>(3.0) or (5.0)</td>
</tr>
<tr>
<td></td>
<td>BUS-151**</td>
<td>Business Mathematics</td>
<td>(3.0)</td>
</tr>
</tbody>
</table>

**TOTAL UNITS (≥ 27.0)**

*Eligibility for ENG-1A fulfills this requirement.

**Eligibility for MAT-123 or completion of any math in which MAT-121 is a prerequisite with a grade of "C" or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.
CHEMISTRY—ASSOCIATE OF SCIENCE DEGREE

PROGRAM DESCRIPTION

The Chemistry program at Hartnell College is designed to meet the needs of the diverse community of interest served by the community college. A full program of chemistry for the aspiring professional scientist is offered through general chemistry and a two-semester course in organic chemistry. A separate track is offered for nursing students which includes general inorganic, organic, and biochemistry. The Chemistry discipline also has a strong commitment to the student with little or no prior chemistry background. The entire program is taught with a strong laboratory emphasis, and in the more advanced classes, students receive hands-on experience with a wide variety of instruments.

Four-year graduates in chemistry are qualified for positions in research, industry, education, engineering, and the allied medical fields.

FOR MORE INFORMATION, CONTACT: Lawrence Yee at 831-755-8887, lyee@hartnell.edu, MER 24B

PROGRAM OUTCOMES

Upon successful completion of the Chemistry program, a student should be able to:

- apply appropriate chemical theories, concepts, principles, methods, and laboratory skills to relevant science and engineering settings.
- demonstrate competence in chemistry laboratory techniques and experimental methods.

A minimum of 60.0 semester units with a grade of "C" or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>CHM-1A²</td>
<td>General Chemistry I</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CHM-1B</td>
<td>General Chemistry II</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CHM-12A</td>
<td>Organic Chemistry I</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CHM-12B</td>
<td>Organic Chemistry II</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-3A</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-3B</td>
<td>Analytic Geometry and Calculus II</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-13F</td>
<td>Elementary Statistics</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-25F</td>
<td>Pre-Calculus</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PHY-2A &amp; PHY-2B or PHY-4A &amp; PHY-14B</td>
<td>College Physics I &amp; College Physics II or General Physics/Mechanics &amp; Properties of Matter General Physics/Electricity and Magnetism</td>
<td>8.0</td>
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SUBTOTAL UNITS (31.0)

<table>
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<tr>
<th>✓ RECOMMENDED MAJOR ELECTIVES (Select from list; none required)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended Major Elective</td>
<td>MAT-3C</td>
<td>Analytic Geometry and Calculus III</td>
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<tr>
<td>Recommended Major Elective</td>
<td>MAT-5</td>
<td>Differential Equations</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>MAT-4</td>
<td>Linear Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>PHY-4C</td>
<td>General Physics/Waves, Heat, Light and Modern Physics</td>
<td>4.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS

<table>
<thead>
<tr>
<th>✓ ELECTIVES (Courses Numbered 1–199)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
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<td></td>
</tr>
<tr>
<td>Elective</td>
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<td></td>
</tr>
<tr>
<td>Elective</td>
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</table>

SUBTOTAL UNITS (≥ 3.0)

<table>
<thead>
<tr>
<th>✓ REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences</td>
<td>CHM-1A²</td>
<td>General Chemistry I</td>
<td>(5.0)</td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic Groups in the United States (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</td>
<td>MAT-13F</td>
<td>Elementary Statistics</td>
<td>(5.0)</td>
</tr>
<tr>
<td>Communication and Analytical Thinking</td>
<td>MAT-25F</td>
<td>Pre-Calculus</td>
<td>(4.0)</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 21.0)

TOTAL UNITS (≥ 60.0)

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a 'C' or better or a score of 70% or greater on the mathematics competency exam

² These courses are also Required Major Courses

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
PROGRAM DESCRIPTION

The Chicano Studies program provides organized studies in the heritage of Chicanos and fosters and expands general understanding of the cultural contributions of this group. The Chicano Studies courses give students opportunities to develop competence in and an understanding of the language, history, and culture of Chicanos, as well as current issues affecting the Chicano community. Completion of the Chicano Studies major enhances students’ qualifications for positions in schools, community groups, governmental organizations, and private enterprise.

For detailed requirements for individual four-year institutions, students should contact the transfer institution and/or meet with a counselor for specific transfer course requirements in their major.

FOR MORE INFORMATION, CONTACT: Ann deJesus-Riley at 831-755-6787, adejesus@hartnell.edu, CAB 323

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>HIS-49A</td>
<td>Chicano History A</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>HIS-49B</td>
<td>Chicano History B</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ETH-3A</td>
<td>Chicanos in American Society</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ETH-4</td>
<td>Chicano Culture</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (9.0)

CHOICE A SINGLE AREA OF EMPHASIS: Complete 3.0 units in each of the areas of emphasis listed below

✓ RESTRICTED MAJOR ELECTIVES—CULTURE (Select a minimum of 3.0 units from the following)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHPOL-5</td>
<td>Chicano Politics and the American Political System</td>
<td>3.0</td>
</tr>
<tr>
<td>ETH-2</td>
<td>Chicano Leadership</td>
<td>3.0</td>
</tr>
<tr>
<td>ETH-8</td>
<td>La Chicana</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 3.0)

✓ RESTRICTED MAJOR ELECTIVES—LITERATURE (Select a minimum of 3.0 units from the following)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG-1B</td>
<td>College Reading and Composition: Chicano Perspective</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-25</td>
<td>Chicano Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>ETH-12</td>
<td>Chicano Cinema</td>
<td>3.0</td>
</tr>
<tr>
<td>SPA-35</td>
<td>Literatura chicana</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 3.0)

✓ RECOMMENDED ELECTIVES (Courses Numbered 1–199)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPA-2, 2S, or 2X</td>
<td>Elementary Spanish or higher</td>
<td>5.0</td>
</tr>
<tr>
<td>MAT-13</td>
<td>Elementary Statistics</td>
<td>3.0</td>
</tr>
<tr>
<td>SPE-1A</td>
<td>Essentials of Public Speaking</td>
<td>3.0</td>
</tr>
</tbody>
</table>

✓ ELECTIVES (Courses Numbered 1–199)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
<td>Elective</td>
<td></td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 24.0)

✓ REQUIRED GENERAL EDUCATION COURSES

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic Groups in the United States (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td>ETH-3A</td>
<td>Chicanos in American Society (3.0)</td>
</tr>
<tr>
<td>Language and Rationale (9 Units)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking (Select a minimum of 1 unit from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 21.0)

TOTAL UNITS (≥ 60.0)

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam. These courses are also Required Major Courses

† These courses are also Required Major Courses

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
COMMUNICATION STUDIES—ASSOCIATE OF ARTS DEGREE (Pending Chancellor’s Office Approval)

PROGRAM DESCRIPTION

The Communication Studies program allows students to focus their major course work and required electives to meet the needs of business, interpersonal, and public communication and demonstrate communicative competence.

FOR MORE INFORMATION, CONTACT: Office of Academic Affairs and Accreditation at 831-770-7090, CAB 209

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>SPE-1A</td>
<td>Essentials of Public Speaking</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>SPE-3</td>
<td>Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>SPE-8</td>
<td>Interpersonal Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>SPE/COU-35</td>
<td>Intercultural Communications</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (12.0)**

<table>
<thead>
<tr>
<th>RESTRICTED MAJOR ELECTIVES (Select a minimum of 9.0 units from the following)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>BUS-175</td>
<td>Business Communications</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>BUS-194</td>
<td>Human Relations in Business</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>SPE/BUS-5</td>
<td>Introduction to Organizational Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>SPE-18</td>
<td>Voice and Diction</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>SPE-45</td>
<td>Special Projects</td>
<td>1.0-3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>THA-2A</td>
<td>Art of Interpretive Speech</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>THA-13</td>
<td>The Language of Acting</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>SOC-4</td>
<td>Introduction to Social Problems</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>SOC-41</td>
<td>Marriage and Family Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>PSY-41</td>
<td>Psychology of Human Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ANT-2</td>
<td>Introduction to Anthropology: Cultural</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (≥ 9.0)**

<table>
<thead>
<tr>
<th>ELECTIVES (Courses Numbered 1–199)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
<td></td>
<td></td>
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<tr>
<td>Elective</td>
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<td>Elective</td>
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<td>Elective</td>
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<td>Elective</td>
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<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (≥ 18.0)**

<table>
<thead>
<tr>
<th>REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic Groups in the United States (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENG-1A</td>
<td>College Reading and Composition</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking (Select a minimum of 1 unit from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (≥ 21.0)**

**TOTAL UNITS (≥ 60.0)**

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam

‡ These courses are also Required Major Courses

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
COMPUTER SCIENCE AND INFORMATION SYSTEMS—COMPUTER SCIENCE OPTION—ASSOCIATE OF SCIENCE DEGREE

PROGRAM DESCRIPTION

The Computer Science and Information Systems program prepares students taking the Computer Science Option with the lower-division coursework required at most universities for advancement to upper-division coursework for the Bachelor’s Degree with a major in Computer Science or Information Systems fields. The Computer Science and Information Systems program prepares students taking the PC/Networking Support Specialist or Digital and Web Design Options with immediate entry into the workforce by obtaining an Associate’s Degree. All options are designed to provide students with the skills necessary for employment in the information systems and computer science industry.

Computer Science Option

This certificate or degree program is designed for those interested in becoming programmers in a technical or scientific systems environment, or for students desiring transfer to a four-year computer science degree program.

As a result of ongoing changes in technology, the need to expand competencies, and changing transfer requirements, certificate and degree requirements may also change. If you note changes in degrees or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty member on how best to complete the program in which you are enrolled.

For detailed requirements for individual four-year institutions, students should contact the transfer institution and/or meet with a counselor for specific transfer course requirements in their major.

FOR MORE INFORMATION, CONTACT: Pam Wiese at 831-755-6918, pwiese@hartnell.edu, CAB 268

PROGRAM OUTCOMES

Upon successful completion of the Computer Science and Information Systems—Computer Science Option program, a student should be able to:

- demonstrate strong interpersonal skills, communicate effectively with technical and non-technical colleagues, and work effectively on a team.
- design and construct significant computer application(s) using current programming languages and operating systems.
- describe the functions of a contemporary operating system with respect to convenience, efficiency, and the ability to evolve.
- demonstrate the ability to evaluate algorithms, select from a range of possible options, provide justification for that selection, and implement the algorithm in programming context.

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>CSS-1</td>
<td>Introduction to Computer Science and Programming Fundamentals</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-2A</td>
<td>Object Oriented Programming</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-2B</td>
<td>Data Structures and Algorithms</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-3</td>
<td>Programming in Visual Basic</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-31</td>
<td>Database Management</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-60A</td>
<td>2-D Game Development</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-60B</td>
<td>3-D Game Development</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-122</td>
<td>Computer Security Principles</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-123</td>
<td>Network Security Principles</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-126</td>
<td>Dreamweaver</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Elective</td>
<td>MAT-3B</td>
<td>Analytic Geometry and Calculus II</td>
<td>4.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (28.0)

<table>
<thead>
<tr>
<th>✓ REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences</td>
<td>MAT-3A</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 11.0)

A. Written Composition
B. Communication and Analytical Thinking

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.

Hartnell College Catalog – 2009/10
COMPUTER SCIENCE AND INFORMATION SYSTEMS—COMPUTER SCIENCE OPTION—CERTIFICATE OF ACHIEVEMENT

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of "C" or better must be maintained in all certificate-applicable units.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSS-1</td>
<td>Introduction to Computer Science and Programming Fundamentals</td>
<td>4.0</td>
</tr>
<tr>
<td>CSS-2A</td>
<td>Object Oriented Programming</td>
<td>4.0</td>
</tr>
<tr>
<td>CSS-2B</td>
<td>Data Structures and Algorithms</td>
<td>4.0</td>
</tr>
<tr>
<td>CSS-6</td>
<td>Programming in Visual Basic</td>
<td>4.0</td>
</tr>
<tr>
<td>CSS-41</td>
<td>Operating Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>CSS-43</td>
<td>Computer Systems and Information Literacy</td>
<td>4.0</td>
</tr>
<tr>
<td>CSS-121A</td>
<td>Networking Fundamentals</td>
<td>4.0</td>
</tr>
<tr>
<td>ENG-101*</td>
<td>Intermediate Composition and Reading or English for Academic Purposes II</td>
<td>(3.0)</td>
</tr>
<tr>
<td>ESL-101*</td>
<td>or English for Academic Purposes II</td>
<td>(5.0)</td>
</tr>
<tr>
<td>MAT-123**</td>
<td>Intermediate Algebra</td>
<td>(5.0)</td>
</tr>
</tbody>
</table>

**Total Subtotal Units (≥ 36.0 units)**

- **Required Major Courses**: 36.0 units
- **Total Units (≥ 47.0 units)**

*Eligibility for ENG-1A fulfills this requirement.

**Completion of any math in which MAT-121 is a prerequisite with a grade of "C" or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.
Computer Science and Information Systems—Digital and Web Design Option—Associate of Science Degree

Program Description

The Computer Science and Information Systems program prepares students taking the Computer Science Option with the lower-division coursework required at most universities for advancement to upper-division coursework for the Bachelor’s Degree with a major in Computer Science or Information Systems fields. The Computer Science and Information Systems program prepares students taking the PC/Networking Support Specialist or Digital and Web Design Options with immediate entry into the workforce by obtaining an Associate’s Degree. All options are designed to provide students with the skills necessary for employment in the information systems and computer science industry.

Digital and Web Design Option

This certificate or degree program is designed for those interested in designing effective and persuasive digital and web media. This option emphasizes the following competencies: managing the development and delivery of comprehensive, integrated digital media, and schedule, customer liaison skills and client interaction, and integrating all facets of digital media into an effective product.

As a result of ongoing changes in technology, the need to expand competencies, and changing transfer requirements, certificate and degree requirements may also change. If you note changes in degrees or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty member on how best to complete the program in which you are enrolled.

For detailed requirements for individual four-year institutions, students should contact the transfer institution and/or meet with a counselor for specific transfer course requirements in their major.

For More Information, Contact: Christine Svendsen at 831-755-6851, svendsen@hartnell.edu, CAB 205

Program Outcomes

Upon successful completion of the Computer Science and Information Systems—Digital and Web Design Option program, a student should be able to:

- anticipate, identify and solve technical and design issues by applying current media design standards.
- demonstrate strong interpersonal skill, communicate effectively with technical and non-technical colleagues, work effectively on a team.
- apply knowledge in a variety of computer skill and proficiency areas including programming languages, software applications, and hardware setup and configuration.

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>CSS-1</td>
<td>Introduction to Computer Science and Programming Fundamentals</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-25</td>
<td>Multimedia Integration</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-27</td>
<td>Digital Project Management and Content</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-29</td>
<td>Programming for Multimedia</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>CSS-31</td>
<td>Database Management</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-43</td>
<td>Computer Systems and Information Literacy</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-126</td>
<td>Dreamweaver</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-127</td>
<td>Flash</td>
<td>4.0</td>
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</tbody>
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Sum: 30.0

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR ELECTIVES (Select a minimum of 12.0 units from the following)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>CSS-6</td>
<td>Programming in Visual Basic</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>CSS-60A</td>
<td>2-D Game Development</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>CSS-60B</td>
<td>3-D Game Development</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>CSS-78</td>
<td>Beginning Flash Game Design and Programming</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>CSS-64</td>
<td>Beginning Digital Cartooning in Flash</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Sum: 12.0

<table>
<thead>
<tr>
<th>✓ REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic Groups in the United States (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</td>
<td>MAT-123</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
<tr>
<td>Communication and Analytical Thinking (Select a minimum of 1 unit from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sum: 21.0

| ✓ TOTAL UNITS (≥ 63.0) |            |              |       |

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a “C” or better or a score of 70% or greater on the mathematics competency exam

+ These courses are also Required Major Courses

Transfer Students: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.

Hartnell College Catalog – 2009/10
## COMPUTER SCIENCE AND INFORMATION SYSTEMS—DIGITAL AND WEB DESIGN OPTION—CERTIFICATE OF ACHIEVEMENT

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of “C” or better must be maintained in all certificate-applicable units.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>CSS-1</td>
<td>Introduction to Computer Science and Programming Fundamentals</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-25</td>
<td>Multimedia Integration</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-27</td>
<td>Digital Project Management and Content</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-29</td>
<td>Programming for Multimedia</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-43</td>
<td>Computer Systems and Information Literacy</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-29</td>
<td>Programming for Multimedia</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-29</td>
<td>Programming for Multimedia</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-6</td>
<td>Programming in Visual Basic</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-31</td>
<td>Database Management</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-60A</td>
<td>2-D Game Development</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-60B</td>
<td>3-D Game Development</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-78</td>
<td>Beginning Flash Game Design and Programming</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-84</td>
<td>Beginning Digital Cartooning in Flash</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Eligibility for ENG-1A fulfills this requirement.**

**Completion of any math in which MAT-123 is a prerequisite with a grade of “C” or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.**
COMPUTER SCIENCE AND INFORMATION SYSTEMS—PC AND NETWORKING SUPPORT SPECIALIST OPTION—ASSOCIATE OF SCIENCE DEGREE

PROGRAM DESCRIPTION

The Computer Science and Information Systems program prepares students taking the Computer Science Option with the lower-division coursework required at most universities for advancement to upper-division coursework for the Bachelor’s Degree with a major in Computer Science or Information Systems fields. The Computer Science and Information Systems program prepares students taking the PC/Networking Support Specialist or Digital and Web Design Options with immediate entry into the workforce by obtaining an Associate’s Degree. All options are designed to provide students with the skills necessary for employment in the information systems and computer science industry.

PC/Networking Support Specialist Option

This certificate or degree program is designed for those interested in becoming computer technicians in a networked business or information systems environment.

As a result of ongoing changes in technology, the need to expand competencies, and changing transfer requirements, certificate and degree requirements may also change. If you note changes in degrees or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty member on how best to complete the program in which you are enrolled.

For detailed requirements for individual four-year institutions, students should contact the transfer institution and/or meet with a counselor for specific transfer course requirements in their major.

FOR MORE INFORMATION, CONTACT: Joe Welch at 831-755-6747, jwelch@hartnell.edu, CAB 367

PROGRAM OUTCOMES

Upon successful completion of the Computer Science and Information Systems—PC and Networking Support Specialist Option program, a student should be able to:

- design, plan, and implement a small office network, incorporating current industry standards.
- demonstrate strong interpersonal skills, communicate effectively with technical and non-technical colleagues, and work effectively on a team.
- assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems.

A minimum of 60.0 semester units with a grade of "C" or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>Required Major Courses</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>CSS-1</td>
<td>Introduction to Computer Science and Programming Fundamentals</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-41</td>
<td>Operating Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-43</td>
<td>Computer Systems and Information Literacy</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-169</td>
<td>Computer Maintenance and Repair</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-121A</td>
<td>Networking Fundamentals</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-121B</td>
<td>Network Management – Hardware</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-122</td>
<td>Computer Security Principles</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Subtotal Units (≥ 28.0)

<table>
<thead>
<tr>
<th>Restricted Major Electives (Select a minimum of 11 units from the following)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>CSS-31</td>
<td>Database Management</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>CSS-121C</td>
<td>Fundamentals of LAN WAN Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>CSS-123</td>
<td>Network Security Principles</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>CSS-126</td>
<td>Dreamweaver</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ELE-55</td>
<td>Introduction to Digital Electronics</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Subtotal Units (≥ 11 units)

<table>
<thead>
<tr>
<th>Required General Education Courses</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic Groups in the United States (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking (Select a minimum of 1 unit from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication and Analytical Thinking</td>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Subtotal Units (≥ 21.0)

Total Units (≥ 60.0)

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam

†These courses are also Required Major Courses

TRANSFER STUDENTS: Complete the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
COMPUTER SCIENCE AND INFORMATION SYSTEMS—PC NETWORKING SUPPORT SPECIALIST OPTION—CERTIFICATE OF ACHIEVEMENT

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of “C” or better must be maintained in all certificate-applicable units.

<table>
<thead>
<tr>
<th>CHECKED REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>CSS-1</td>
<td>Introduction to Computer Science and Programming Fundamentals</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-41</td>
<td>Operating Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-43</td>
<td>Computer Systems and Information Literacy</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-169</td>
<td>Computer Maintenance and Repair</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-121A</td>
<td>Networking Fundamentals</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-121B</td>
<td>Network Management – Hardware</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-122</td>
<td>Computer Security Principles</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ENG-101* or ESL-101*</td>
<td>Intermediate Composition and Reading or English for Academic Purposes II</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ENG-101* or ESL-101*</td>
<td>Intermediate Composition and Reading or English for Academic Purposes II</td>
<td>(5.0)</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT 201**</td>
<td>Prealgebra</td>
<td>(3.0)</td>
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</table>

**SUBTOTAL UNITS (≥31.0)

<table>
<thead>
<tr>
<th>CHECKED RESTRICTED MAJOR ELECTIVES (Select a minimum of 11.0 units from the following)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>CSS-31</td>
<td>Database Management</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>CSS-121C</td>
<td>Fundamentals of LAN WAN Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>CSS-123</td>
<td>Network Security Principles</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>CSS-126</td>
<td>Dreamweaver</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ELE-55</td>
<td>Introduction to Digital Electronics</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (≥11.0)

**TOTAL UNITS (≥42.0)

*Eligibility for ENG-1A fulfills this requirement.

**Eligibility for MAT-121 or completion of any math in which MAT-201 is a prerequisite with a grade of “C” or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.
CONSTRUCTION—CONSTRUCTION MANAGEMENT—ASSOCIATE OF SCIENCE DEGREE

PROGRAM DESCRIPTION

The Construction Technology programs are designed to give students practical skills and management training in all phases of residential construction. The skills training is provided through actual hands-on construction of a project each year. Students may transfer to a four-year school in the area of Construction Management. In addition to the Associate Degree program, there are three certificate areas of specialization: Carpentry, Construction Trade Skills, and Construction Management.

As a result of ongoing changes in technology, the need to expand competencies, and changing transfer requirements, certificate and degree requirements may also change. If you note changes in degrees or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty on how best to complete the program in which you are enrolled.

FOR MORE INFORMATION, CONTACT: Career and Economic Development at 755-6960, TECH 11

A minimum of 60.0 semester units with a grade of "C" or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>CON-50 or</td>
<td>Residential Construction: Rough Frame or</td>
<td>6.0</td>
</tr>
<tr>
<td></td>
<td>CON-50A and</td>
<td>Residential Construction: Building Layout and</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>CON-50B and</td>
<td>Residential Construction: Wall &amp; Stair and</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>CON-50C</td>
<td>Residential Construction: Roof Frame</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CON-51 or</td>
<td>Residential Construction: Finish Work or</td>
<td>6.0</td>
</tr>
<tr>
<td></td>
<td>CON-51A and</td>
<td>Residential Construction: Exterior Work and</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>CON-51B and</td>
<td>Residential Construction: Interior Work and</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>CON-51C</td>
<td>Residential Construction: Project End</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CON-61</td>
<td>Construction Management</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CON-62</td>
<td>Construction Law and Codes</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CON-63</td>
<td>Construction Estimating</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CON-64</td>
<td>Construction Scheduling</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CON-74</td>
<td>Construction Print Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CON-101</td>
<td>Introduction to Construction</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MEC-169</td>
<td>Hazardous Materials and Industrial Safety</td>
<td>1.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-152</td>
<td>Introduction to Accounting</td>
<td>4.0</td>
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</table>

SUBTOTAL UNITS (≥34.0)

<table>
<thead>
<tr>
<th>RESTRICTED MAJOR ELECTIVES (Select a minimum of 3.0 units from the following)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>CSS-43</td>
<td>Computer Systems and Information Literacy</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>CON-102</td>
<td>Carpentry Skills</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>DRA-50</td>
<td>Introduction to Drafting and Design Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>WLD-150</td>
<td>Basic Welding</td>
<td>2.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥3.0)

<table>
<thead>
<tr>
<th>ELECTIVES (Courses Numbered 1–199)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
<td></td>
<td></td>
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<tr>
<td>Elective</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥2.0)

<table>
<thead>
<tr>
<th>REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic Groups in the United States</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</td>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥21.0)

TOTAL UNITS (≥60.0)

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a 'C' or better or a score of 70% or greater on the mathematics competency exam

† These courses are also Required Major Courses

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CONSTRUCTION MANAGEMENT—CERTIFICATE OF ACHIEVEMENT

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of “C” or better must be maintained in all certificate-applicable units.

<table>
<thead>
<tr>
<th>REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>CON-50 or</td>
<td>Residential Construction: Rough Frame or</td>
<td>6.0</td>
</tr>
<tr>
<td></td>
<td>CON-50A and</td>
<td>Residential Construction: Building Layout and</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>CON-50B and</td>
<td>Residential Construction: Wall &amp; Stair and</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>CON-50C</td>
<td>Residential Construction: Roof Frame</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CON-51 or</td>
<td>Residential Construction: Finish Work or</td>
<td>6.0</td>
</tr>
<tr>
<td></td>
<td>CON-51A and</td>
<td>Residential Construction: Exterior Work and</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>CON-51B and</td>
<td>Residential Construction: Interior Work and</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>CON-51C</td>
<td>Residential Construction: Project End</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CON-61</td>
<td>Construction Management</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CON-62</td>
<td>Construction Law and Codes</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CON-63</td>
<td>Construction Estimating</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CON-64</td>
<td>Construction Scheduling</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CON-74</td>
<td>Construction Print Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CON-101</td>
<td>Introduction to Construction</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MEC-169</td>
<td>Hazardous Materials and Industrial Safety</td>
<td>1.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-152</td>
<td>Introduction to Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ENG-101*</td>
<td>Intermediate Composition and Reading or</td>
<td>(3.0)</td>
</tr>
<tr>
<td></td>
<td>or ESL-101*</td>
<td>Composition and Grammar for ESL</td>
<td>(5.0)</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-151**</td>
<td>Technical Mathematics</td>
<td>(3.0)</td>
</tr>
</tbody>
</table>

*Eligibility for ENG-1A fulfills this requirement.

**Eligibility for MAT-123 or completion of any math in which MAT-121 is a prerequisite with a grade of “C” or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.
CONSTRUCTION TECHNOLOGY—CARPENTRY—CERTIFICATE OF ACHIEVEMENT

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of “C” or better must be maintained in all certificate-applicable units.

<table>
<thead>
<tr>
<th>✓</th>
<th>REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>CON-50 or CON-50A and CON-50B and CON-50C</td>
<td>Residential Construction: Rough Frame</td>
<td>6.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Residential Construction: Building Layout and Residential Construction: Wall &amp; Stair and Residential Construction: Roof Frame</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CON-51 or CON-51A and CON-51B and CON-51C</td>
<td>Residential Construction: Finish Work</td>
<td>6.0</td>
<td></td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CON-74</td>
<td>Construction Print Reading</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CON-101</td>
<td>Introduction to Construction</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MEC-169</td>
<td>Hazardous Materials and Industrial Safety</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-152</td>
<td>Introduction to Accounting</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ENG-101* or ESL-101*</td>
<td>Intermediate Composition and Reading or Composition and Grammar for ESL</td>
<td>(3.0)</td>
<td></td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-151**</td>
<td>Technical Mathematics</td>
<td>(3.0)</td>
<td></td>
</tr>
</tbody>
</table>

**Eligibility for ENG-1A fulfills this requirement.

**Eligibility for MAT-123 or completion of any math in which MAT-121 is a prerequisite with a grade of “C” or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.
CONSTRUCTION TRADE SKILLS—CERTIFICATE OF ACHIEVEMENT

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of “C” or better must be maintained in all certificate-applicable units.

<table>
<thead>
<tr>
<th>REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>CON-50 or</td>
<td>Residential Construction: Rough Frame or</td>
<td>6.0</td>
</tr>
<tr>
<td></td>
<td>CON-50A and</td>
<td>Residential Construction: Building Layout and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CON-50B and</td>
<td>Residential Construction: Wall &amp; Stair and</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>CON-50C</td>
<td>Residential Construction: Roof Frame</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CON-51 or</td>
<td>Residential Construction: Finish Work or</td>
<td>6.0</td>
</tr>
<tr>
<td></td>
<td>CON-51A and</td>
<td>Residential Construction: Exterior Work and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CON-51B and</td>
<td>Residential Construction: Interior Work and</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>CON-51C</td>
<td>Residential Construction: Project End</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CON-54</td>
<td>Concrete Construction</td>
<td>3.0</td>
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<tr>
<td>Required Major Course</td>
<td>CON-55</td>
<td>Masonry Construction</td>
<td>3.0</td>
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<tr>
<td>Required Major Course</td>
<td>CON-70</td>
<td>Residential Plumbing</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CON-71</td>
<td>Residential Electrical</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CON-74</td>
<td>Construction Print Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CON-101</td>
<td>Introduction to Construction</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MEC-169</td>
<td>Hazardous Materials and Industrial Safety</td>
<td>1.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-152</td>
<td>Introduction to Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ENG-101*</td>
<td>Intermediate Composition and Reading or</td>
<td>(3.0)</td>
</tr>
<tr>
<td></td>
<td>or ESL-101*</td>
<td>Composition and Grammar for ESL</td>
<td>(5.0)</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-151**</td>
<td>Technical Mathematics</td>
<td>(3.0)</td>
</tr>
</tbody>
</table>

*Eligibility for ENG-1A fulfills this requirement.

**Eligibility for MAT-123 or completion of any math in which MAT-121 is a prerequisite with a grade of “C” or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.
The Certificate of Achievement in California State University General Education Breadth (CSU-GE), developed by the Counseling Discipline, will be awarded upon completion of the CSU GE Breadth requirements as outlined on the catalog year’s CSU-GE Breadth sheet. Students must complete a minimum of 39 units, which are distributed among five areas. CSU-GE Breadth Sheet requirements are designed to be taken with a major area of concentration and elective courses in preparation for transfer to a California State University. This certificate recognizes the completion of lower-division general education requirements for the CSU. For many majors, students are encouraged to complete the CSU GE pattern; however, it is not required for admission to the CSU. An official petition must be filed with the Admission and Records Office prior to the graduation deadlines as stated in the Academic Calendar. Certification of the CSU-GE Breath will be indicated on the student’s transcript. (Refer to CSU-GE pages in this catalog.)

FOR MORE INFORMATION CONTACT: Counseling Discipline at 831-755-6820
DIGITAL ARTS—ASSOCIATE OF ARTS DEGREE

PROGRAM DESCRIPTION

The Digital Arts program offers a certificate and associate degree in Digital Arts and Digital Arts with animation specialization. Classes include training in graphic design, digital graphics, 2D digital illustration, 2D digital photographic imaging, digital video and audio editing, 2D and 3D digital animation, 3D modeling, storyboard development for animation and interactive digital media interface design.

An imaginative blend of art, design, photography, video, animation and illustration is applied to producing digital media presentations for business, education, entertainment, telecommunication and medical industries. Graduates in Digital Arts are qualified for positions in graphic design, digital art, web design, game design, 2D illustration, digital photographic imaging, audio engineering, video editing, digital video, or digital media interface design. Graduates in Digital Arts with animation specialization are qualified for positions in 3D digital art, game design, storyboard art, 3D modeling: character animation, digital 3D broadcast logo design, digital 3D volumetrics, 3D animation and compositing, 2D digital art, 2D compositing, 2D chroma key, 2D texture painting, or rotoscoping.

For detailed requirements for individual four-year institutions, students should contact the transfer institution and/or meet with a counselor for specific transfer course requirements in their major.

As a result of ongoing changes in technology, the need to expand competencies, and changing transfer requirements, certificate and degree requirements may also change. If you note changes in degrees or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty member on how best to complete the program in which you are enrolled.

FOR MORE INFORMATION, CONTACT:  Jerri Nemiro at 831-755-6797, jmnimiro@hartnell.edu, VAF 204

PROGRAM OUTCOMES

Upon successful completion of the Digital Arts program, a student should be able to:

- develop the ability to creatively image and technically produce digital artwork or projects.
- demonstrate the ability to communicate visually for printed imagery and interactive media.
- demonstrate the ability to critically formulate visual digital design principles.

A minimum of 60.0 semester units with a grade of "C" or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Each course listed below has prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>ART-70</td>
<td>Graphic Design/Computer Graphics</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART-77</td>
<td>Introduction to 3D Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART-79</td>
<td>Digital Illustration</td>
<td>3.0</td>
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<td>Required Major Course</td>
<td>ART-90</td>
<td>Digital Photographic Imaging</td>
<td>3.0</td>
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<td>Required Major Course</td>
<td>ART-91</td>
<td>Digital Illustration for Animation</td>
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<td>Required Major Course</td>
<td>ART-96</td>
<td>2D Digital Illustration</td>
<td>3.0</td>
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<tr>
<td>Required Major Course</td>
<td>ART-97</td>
<td>Digital Video &amp; Audio Editing and Production</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART-98</td>
<td>3D Modeling for Digital Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART-99</td>
<td>Interactive Digital Media Interface Design</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART-100</td>
<td>Interactive Digital Media Interface Design</td>
<td>3.0</td>
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<tr>
<td>Restricted Major Elective</td>
<td>ART-101</td>
<td>2D Digital Illustration</td>
<td>3.0</td>
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<td>ART-102</td>
<td>3D Digital Animation</td>
<td>3.0</td>
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<tr>
<td>Restricted Major Elective</td>
<td>ART-103</td>
<td>Drawing and Composition</td>
<td>3.0</td>
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<tr>
<td>Restricted Major Elective</td>
<td>ART-104</td>
<td>Introduction to Photography</td>
<td>3.0</td>
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<td>ART-105</td>
<td>Design</td>
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<td>ELECTIVES (Courses Numbered 1–199)</td>
<td>Course No.</td>
<td>Course Title</td>
<td>Units</td>
</tr>
<tr>
<td>Elective</td>
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</tr>
<tr>
<td>Elective</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
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</table>

<table>
<thead>
<tr>
<th>✓ REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences (Select one course from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences (Select one course from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td>ART-71*</td>
<td>Introduction to 2D Digital Illustration</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Ethnic Groups in the United States (Select one course from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</td>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
<td>6.0</td>
</tr>
</tbody>
</table>

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a 'C' or better or a score of 70% or greater on the mathematics competency exam

*These courses satisfy Major and General Education requirements

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org please consult with a Hartnell College counselor to review transfer requirements.
DIGITAL ARTS—CERTIFICATE OF ACHIEVEMENT

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of “C” or better must be maintained in all certificate-applicable units.

<table>
<thead>
<tr>
<th>REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Elective</td>
<td>ART-70</td>
<td>Graphic Design/Computer Graphics</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART-71</td>
<td>Introduction to 2D Digital Illustration</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-72</td>
<td>Introduction to Digital Arts</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART-75</td>
<td>3D Modeling for Digital Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART-77</td>
<td>Digital Video &amp; Audio Edition and Production</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART-80</td>
<td>Digital Photographic Imaging</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART-85</td>
<td>Interactive Digital Media Interface Design</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ENG-101* or ESL-101*</td>
<td>Intermediate Composition and Reading or English for Academic Purposes II</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-123**</td>
<td>Intermediate Algebra</td>
<td>(5.0)</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥21.0)

<table>
<thead>
<tr>
<th>RESTRICTED MAJOR ELECTIVES (Select a minimum of 3.0 units from the following)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>ART-3</td>
<td>Drawing and Composition</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-12A</td>
<td>Design</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-52</td>
<td>Portfolio Development</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART-73</td>
<td>Introduction to Digital Illustration for Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART-76</td>
<td>3D Digital Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>DRA-50</td>
<td>Introduction to Drafting Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>PHO-1</td>
<td>Introduction to Photography</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥3.0)

TOTAL UNITS (≥24.0)

*Eligibility for ENG-1A fulfills this requirement.

**Completion of any math in which MAT-123 is a prerequisite with a grade of “C” or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.
DIGITAL ARTS—ANIMATION SPECIALIST—ASSOCIATE OF ARTS DEGREE

PROGRAM DESCRIPTION

The Digital Arts program offers a certificate and associate degree in Digital Arts and Digital Arts with animation specialization. Classes include training in graphic design, digital graphics, 2D digital illustration, 2D digital photographic imaging, digital video and audio editing, 2D and 3D digital animation, 3D modeling, storyboard development for animation and interactive digital media interface design.

An imaginative blend of art, design, photography, video, animation and illustration is applied to producing digital media presentations for business, education, entertainment, telecommunication and medical industries. Graduates in Digital Arts are qualified for positions in graphic design, digital art, web design, game design, digital illustration, digital photographic imaging, audio engineering, video editing, digital video, or digital media interface design. Graduates in Digital Arts with animation specialization are qualified for positions in 3D digital art, game design, storyboard art, 3D modeling, character animation, digital 3D broadcast logo design, digital 3D volumetrics, 3D animation and compositing, 2D digital art, 2D compositing, 2D chroma key, 2D texture painting, or rotoscoping.

For detailed requirements for individual four-year institutions, students should contact the transfer institution and/or meet with a counselor for specific transfer course requirements in their major.

As a result of ongoing changes in technology, the need to expand competencies, and changing transfer requirements, certificate and degree requirements may also change. If you note changes in degrees or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty member on how best to complete the program in which you are enrolled.

FOR MORE INFORMATION, CONTACT: Jerri Nemiro at 831-755-6797, nemiro@hartnell.edu, VAF 204

PROGRAM OUTCOMES

Upon successful completion of the Digital Arts—Animation Specialist program, a student should be able to:

- create models in the 3D X,Y,Z interfaces.
- develop sequential forms of animation in the 2D and 3D environment.
- research, design, analyze, and critically formulate storyboards for animation.

A minimum of 60.0 semester units with a grade of "C" or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Each course listed below has prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART-3</td>
<td>Drawing and Composition</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ART-71</td>
<td>Introduction to 2D Digital Illustration</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ART-73</td>
<td>Introduction to Digital Illustration for Animation</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ART-75</td>
<td>3D Modeling for Digital Animation</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ART-76</td>
<td>3D Digital Animation</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ART-80</td>
<td>Digital Photographic Imaging</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ART-77</td>
<td>Digital Video &amp; Audio Editing and Production</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ART-85</td>
<td>Interactive Digital Media Interface Design</td>
<td>3.0</td>
<td></td>
</tr>
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</table>

SUBTOTAL UNITS (24.0)

<table>
<thead>
<tr>
<th>✓ RESTRICTED MAJOR ELECTIVES (Select a minimum of 9.0 units from the following)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ART-12A</td>
<td>Design</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ART-70</td>
<td>Graphic Design/ Computer Graphics</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ART-72</td>
<td>Introduction to Digital Arts</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>PHO-1</td>
<td>Introduction to Photography</td>
<td>3.0</td>
<td></td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 9.0)

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<thead>
<tr>
<th>✓ ELECTIVES (Courses Numbered 1–199)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 6.0)

<table>
<thead>
<tr>
<th>✓ REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td>ART-73</td>
<td>Introduction to Digital Illustration for Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td>ENG-1A</td>
<td>College Reading and Composition</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT-123^</td>
<td>Intermediate Algebra</td>
<td>3.0</td>
<td></td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 21.0)

DEGREE TOTAL UNITS (≥ 60.0)

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a "C" or better or a score of 70% or greater on the mathematics competency exam

^These courses satisfy Major and General Education requirements

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
DIGITAL ARTS—ANIMATION SPECIALIST—CERTIFICATE OF ACHIEVEMENT

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of “C” or better must be maintained in all certificate-applicable units.

<table>
<thead>
<tr>
<th>REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>ART-71</td>
<td>Introduction to 2D Digital Illustration</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART-73</td>
<td>Introduction to Digital Illustration for Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART-75</td>
<td>3D Modeling for Digital Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART-76</td>
<td>3D Digital Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART-77</td>
<td>Digital Video &amp; Audio Edition and Production</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART-80</td>
<td>Digital Photographic Imaging</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART-85</td>
<td>Interactive Digital Media Interface Design</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ENG-101* or ESL-101*</td>
<td>Intermediate Composition and Reading or English for Academic Purposes</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-123**</td>
<td>Intermediate Algebra</td>
<td>(5.0)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUBTOTAL UNITS (≥21.0)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>REQUIRED MAJOR ELECTIVES (Select a minimum of 3.0 units from the following)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>ART-3</td>
<td>Drawing and Composition</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-12A</td>
<td>Design</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-52</td>
<td>Portfolio Development</td>
<td>1.0-3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-70</td>
<td>Graphic Design/Computer Graphics</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-72</td>
<td>Introduction to Digital Arts</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>DRA-50</td>
<td>Introduction to Drafting Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>PHO-1</td>
<td>Introduction to Photography</td>
<td>3.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUBTOTAL UNITS (≥3.0)</th>
</tr>
</thead>
</table>

| TOTAL UNITS (≥24.0) |

*Eligibility for ENG-1A fulfills this requirement.

**Completion of any math in which MAT-123 is a prerequisite with a grade of “C” or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.
PROGRAM DESCRIPTION

The Early Childhood Education (ECE) program offers a comprehensive program to prepare students for career and job opportunities in early education and care of young children from diverse family backgrounds enrolled in child development centers, family child care settings, and educational programs for preschoolers as well as for parents of young children, school-age children, and children with special needs along with other ECE related-programs in the community.

The ECE curriculum provides coursework with specializations in administration of ECE programs, infant/toddler development and care, and special needs. Students will be eligible to meet Department of Social and Employment Services Title 22 and Education Code Title 5 licensing regulations for teaching personnel and administrative staff in private and public child development programs and agencies.

As a result of ongoing changes of laws, mandates, and licensing regulations for teaching personnel and ECE programs, certificate and degree requirements may also change. If you note changes in degrees or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty on how best to complete the program in which you are enrolled.

For detailed requirements for individual four-year institutions, students should contact the transfer institution and/or meet with a counselor for specific transfer course requirements in their major.

FOR MORE INFORMATION, CONTACT: Jeanne Hori-Garcia at 831-759-6065, jhorigarcia@hartnell.edu, TECHNOLOGY 6 Hermelinda Rocha-Tabera at 831-755-6750, hbrocha@hartnell.edu, TECHNOLOGY 9 Andrea Zarate at 831-755-6885, zarate@hartnell.edu, TECHNOLOGY 9

PROGRAM OUTCOMES

Upon successful completion of the Early Childhood Education program, a student should be able to:

- plan and organize and teach in a classrooms for children (12-24 children).
- assess, evaluate and write reports according to state mandated guidelines.
- work with families and community agencies.

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>ECE-101</td>
<td>Orientation to ECE</td>
<td>1.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ECE-1</td>
<td>Principles and Practices in Teaching Young Children</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ECE-2</td>
<td>Child, Family, and Community</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ECE-4</td>
<td>Introduction to Curriculum</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ECE-19</td>
<td>Health, Safety, and Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ECE-10</td>
<td>Observation and Assessment</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ECE-12A</td>
<td>Preschool Theory &amp; Practice</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ECE-53 ²</td>
<td>Teaching in a Diverse Society</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>FCS-14 ²</td>
<td>Child Development</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (19.0)

CHOOSE A SINGLE AREA OF EMPHASIS: Complete 6 units in one of the areas of emphasis listed below

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES (INFANT AND TODDLER EMPHASIS)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>ECE-20</td>
<td>Infant/Toddlers Development</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ECE-22</td>
<td>Infant/Toddlers: Family Relations of Diverse Backgrounds</td>
<td>1.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ECE-23</td>
<td>Infant/Toddlers: Cognitive and Language Learning</td>
<td>2.0</td>
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</tbody>
</table>

SUBTOTAL UNITS (6.0)

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES (SPECIAL NEEDS EMPHASIS)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>ECE-24</td>
<td>Infant/Toddlers: Special Needs</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ECE-25</td>
<td>Children with Special Needs</td>
<td>3.0</td>
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</tbody>
</table>

SUBTOTAL UNITS (6.0)

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES (SUPERVISION EMPHASIS)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>ECE-70A</td>
<td>Supervision and Administration in ECE Programs</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ECE-70B</td>
<td>Advanced Supervision and Administration in ECE Programs</td>
<td>3.0</td>
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</table>

SUBTOTAL UNITS (6.0)

<table>
<thead>
<tr>
<th>✓ RESTRICTED MAJOR ELECTIVES (Select a minimum of 11.0 units from the following)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>ECE-21</td>
<td>Infant/Toddlers: Group Care</td>
<td>1.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ECE-27</td>
<td>Principles &amp; Practices in Guiding Behavior</td>
<td>3.0</td>
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<tr>
<td>Restricted Major Elective</td>
<td>ECE-71*</td>
<td>Supervision of Adults in an ECE Setting</td>
<td>2.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ECE-195-199</td>
<td>Topics in ECE</td>
<td>0.5-3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ECE-18</td>
<td>Communication Skills in ECE</td>
<td>2.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ECE-16</td>
<td>Preschool Curriculum: Music</td>
<td>1.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ECE-17</td>
<td>Preschool Curriculum: Movement</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (11.0)
CON’T OF
EARLY CHILDHOOD EDUCATION—INFANT AND TODDLER EMPHASIS—ASSOCIATE OF SCIENCE DEGREE (Pending Chancellor’s Office Approval)
EARLY CHILDHOOD EDUCATION—SPECIAL NEEDS EMPHASIS—ASSOCIATE OF SCIENCE DEGREE (Pending Chancellor’s Office Approval)
EARLY CHILDHOOD EDUCATION—SUPERVISION EMPHASIS—ASSOCIATE OF SCIENCE DEGREE (Pending Chancellor’s Office Approval)

<table>
<thead>
<tr>
<th>Courses Numbered 1–199</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SUBTOTAL UNITS (≥ 3.0)</strong></td>
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<table>
<thead>
<tr>
<th>REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences</td>
<td>FCS-14‡</td>
<td>Child Development</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Humanities (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic Groups in the United States</td>
<td>ECE-53‡</td>
<td>Teaching in a Diverse Society</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENG-1A</td>
<td>College Reading and Composition</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</td>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
<tr>
<td>Communication and Analytical Thinking (Select a minimum of 1 unit from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SUBTOTAL UNITS (≥ 21.0)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL UNITS (≥ 60.0)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam

‡These courses are also Required Major Courses

*Those students interested in applying for Master Teacher Permit must also complete ECE 71 per permit regulations.

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
EARLY CHILDHOOD EDUCATION—CERTIFICATE OF ACHIEVEMENT

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of "C" or better must be maintained in all certificate-applicable units.

<table>
<thead>
<tr>
<th>Required Major Course</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>ECE-101</td>
<td>Orientation to ECE</td>
<td>1.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ECE-1</td>
<td>Principles and Practices in Teaching Young Children</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ECE-2</td>
<td>Child, Family, and Community</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ECE-4</td>
<td>Introduction to Curriculum</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ECE-19</td>
<td>Health, Safety, and Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ECE-10</td>
<td>Observation and Assessment</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ECE-12A</td>
<td>Preschool Theory &amp; Practicum</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ECE-53</td>
<td>Teaching in a Diverse Society</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>FCS-14</td>
<td>Child Development</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ENG-101*</td>
<td>Intermediate Composition and Reading or English for Academic Purposes II</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ESL-101*</td>
<td>Lay English for Academic Purposes II</td>
<td>(5.0)</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-201**</td>
<td>Prealgebra</td>
<td>(3.0)</td>
</tr>
</tbody>
</table>

*Eligibility for ENG-1A fulfills this requirement.

**Eligibility for MAT-121 or completion of any math in which MAT-201 is a prerequisite with a grade of “C” or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.
EARTH SCIENCE- ASSOCIATE OF SCIENCE DEGREE

PROGRAM DESCRIPTION

The Earth Science program provides the opportunity for an interdisciplinary curriculum for students whose interests cross over into various areas of earth science. Students completing this discipline build a strong foundation in several aspects of earth science, preparing them to continue in the field.

FOR MORE INFORMATION, CONTACT: Robert Barminski at 831-770-7056, rbarminski@hartnell.edu, MER 9

PROGRAM OUTCOMES

Upon successful completion of the Earth Science program, a student should be able to:

- apply the scientific method to knowledge acquisition and transfer of information.
- demonstrate proficiency in the areas of graphical presentation, oral communication and scientific writing.
- examine the various Earth system components and their complex interaction through inquiry-based, interdisciplinary curricula in the physical sciences.
- use observing systems, geospatial technology, computers, information processing and data analysis.
- explain the significance of geological resources and their economic and sustainable value for long-term habitation of the planet by humans.

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>REQUIREMENT</th>
<th>COURSE NO.</th>
<th>COURSE TITLE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED MAJOR COURSES</td>
<td>GEL-1‡</td>
<td>Dynamic Earth</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>GEL-6</td>
<td>History of the Earth</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>AST-1</td>
<td>Introduction to Astronomy</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>OCN-1</td>
<td>Oceanography</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>MET-1</td>
<td>Meteorology—Weather and Climate</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>CHM-1A</td>
<td>General Chemistry I</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>PHY-2A/2B or PHY-4A/4B/4C</td>
<td>College Physics I and II or General Physics/ 4A: Mechanics  4B: Electricity and Magnetism  4C: Waves, Heat, Light and Modern Physics</td>
<td>8.0 / 12.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 26.0)

| RECOMMENDED MAJOR ELECTIVES (None required) | GEL-25 | Environmental Geology | 3.0 |
| | GEL-36 | California Geology | 3.0 |
| | GEL-45 | Special Projects | 1.0-3.0 |
| | GEG-1 | Introduction to Geography: Physical Elements | 3.0 |
| | CHM-1B | General Chemistry II | 5.0 |
| | MAT-3A | Analytic Geometry and Calculus I | 4.0 |
| | MAT-3B | Analytic Geometry and Calculus II | 4.0 |
| | MAT-3C | Analytic Geometry and Calculus III | 4.0 |

SUBTOTAL UNITS (≥ 26.0)

| ELECTIVES (Courses Numbered 1–199) | ENG-1A | College Composition and Reading | 3.0 |
| | MAT-25 | Pre-Calculus | 4.0 |

SUBTOTAL UNITS (≥ 13.0)

| REQUIRED GENERAL EDUCATION COURSES | GEL-1‡ | Dynamic Earth | 4.0 |

SUBTOTAL UNITS (≥ 21.0)

TOTAL UNITS (≥ 60.0)

‡ These courses are also Required Major Courses

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
ELECTRONICS TECHNOLOGY—ASSOCIATE OF SCIENCE DEGREE

PROGRAM DESCRIPTION

The Electronics Technology program prepares students with entry level and advanced skills for employment in local industry.

The program teaches entry and advanced electronic/electrical industrial skills including troubleshooting of electrical and electronic circuits, programming and interfacing of programmable logic controllers (PLC), motor controller (VFD) and microcontrollers. The program offers courses in digital logic, circuit analysis, and computer interfacing. Advance courses emphasize design, installation, programming, analysis, and troubleshooting of industrial control systems.

As a result of ongoing changes in technology, the need to expand competencies, and changing transfer requirements, certificate and degree requirements may also change. If you note changes in degree or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty on how best to complete the program in which you are enrolled.

FOR MORE INFORMATION, CONTACT: Fred Etcheverry at 831-755-6965, fetcheverry@hartnell.edu, TECH 7

PROGRAM OUTCOMES:

Upon successful completion of the Electronics Technology program, a student should be able to:

- comprehend and interpret electronic literature and search the web for information.
- troubleshoot and analyze electronic problems.
- design, install and maintain electronic circuits and systems.

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>ELE-52</td>
<td>Electronic Fundamentals</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ELE-54</td>
<td>Electronic Devices and Circuits</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ELE-55</td>
<td>Introduction to Digital Electronics</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ELE-56</td>
<td>Advanced Circuit Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ELE-57</td>
<td>Instruments and Controls</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ELE-65</td>
<td>Microcomputer Systems and Interfacing</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ELE-150</td>
<td>Electronic Fabrication Practicum</td>
<td>1.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ELE-151</td>
<td>DC Circuit Analysis</td>
<td>2.5</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-52</td>
<td>Introduction to AutoCad</td>
<td>2.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (31.5)

<table>
<thead>
<tr>
<th>RESTRICTED MAJOR ELECTIVES (Select a minimum of 4.0 units from the following)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>CSS-1</td>
<td>Introduction to Computer Science and Programming Fundamentals</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>CSS-2A</td>
<td>Object Oriented Program.</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>CSS-4</td>
<td>Introduction to Scientific Programming</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>CSS-6</td>
<td>Programming In Visual Basic</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>CSS-43</td>
<td>Computer Systems and Information Competency</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>CSS-169</td>
<td>Computer Maintenance and Repair</td>
<td>4.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 4.0)

<table>
<thead>
<tr>
<th>REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences</td>
<td>PHY-10 or</td>
<td>Introduction to Physics</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>PHY-2A</td>
<td>College Physics 1</td>
<td></td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humansitites (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic Groups in the United States (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</td>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 21.0)

TOTAL UNITS (≥ 60.0)

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam

‡ These courses are also Required Major Courses

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
ELECTRONICS TECHNOLOGY—CERTIFICATE OF ACHIEVEMENT

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of “C” or better must be maintained in all certificate-applicable units.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>ELE-52</td>
<td>Electronic Fundamentals</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ELE-54</td>
<td>Electronic Devices &amp; Circuits</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ELE-55</td>
<td>Introduction to Digital Electronics</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ELE-56</td>
<td>Advanced Circuit Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ELE-57</td>
<td>Instruments and Controls</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ELE-65</td>
<td>Microcomputer Systems</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ELE-150</td>
<td>Electronic Fabrication Practicum</td>
<td>1.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ELE-151</td>
<td>D.C. Circuit Analysis</td>
<td>2.5</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-52</td>
<td>Introduction to AutoCAD</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ENG-101*   or ESL-101*</td>
<td>Intermediate Composition and Reading or English for Academic Purposes II</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-121**</td>
<td>Elementary Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

RECOMMENDED MAJOR ELECTIVES (Select from list; none required)

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR ELECTIVES (Select from list; none required)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended Major Elective</td>
<td>CSS-6</td>
<td>Programming in Visual Basic</td>
<td>4.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>CSS-43</td>
<td>Computer Systems and Information Competency</td>
<td>4.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>CSS-169</td>
<td>Computer Maintenance and Repair</td>
<td>4.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>DRA-56</td>
<td>Computer-Aided Electronic Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>PHY-10 or PHY-2A</td>
<td>Introduction to Physics or College Physics I</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Eligibility for ENG-1A fulfills this requirement.

**Eligibility for MAT-123 or completion of any math in which MAT-121 is a prerequisite with a grade of “C” or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.
ELEMENTARY TEACHER PREPARATION—ASSOCIATE OF ARTS DEGREE (Formerly Liberal Studies)

PROGRAM DESCRIPTION

The A.A. Degree in Elementary Teacher Preparation is primarily designed as transfer preparation for future teachers pursuing a Multiple Subject Credential for the elementary school classroom. It is also designed for students who desire the broadest possible liberal education; as an alternative approach to careers in business; and as a preparation for entry into professional schools in the health sciences, law, and ministry. Students may also use the Elementary Teacher Preparation major to prepare for transfer to most California State Universities. The transfer preparation options lists articulated courses with San Jose, CSU Sacramento, Cal Poly SLO, and CSU Fresno. Students preparing to transfer to other institutions should consult with a Hartnell College counselor. Students should also complete any remaining General Education requirements before transferring. Students planning to teach in California should complete geometry in high school or college.

FOR MORE INFORMATION, CONTACT: Counseling Discipline at 831-755-6820, CAB 165

PROGRAM OUTCOMES

Upon successful completion of the Elementary Teacher Preparation program, a student should be able to:

- read, write, speak and verbally comprehend at a college level.
- define information needs, access information efficiently and effectively, evaluate information critically, and use information ethically.
- use quantitative and logical reasoning to analyze information evaluate ideas and solve problems.
- understand and respect the cultural, economic, social, political, biological and interdependence of global life.
- acquire an appreciation in and involvement in the creation or performance of the work of fine arts/music culture.

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-99 may apply toward the Associates Degree.

<table>
<thead>
<tr>
<th>REQUIRED DEGREE COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Degree Course</td>
<td>POL-1</td>
<td>American Political Institutions</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Degree Course</td>
<td>SPA-1 or 1S, 1X or FRN 1 or COU 80</td>
<td>Elementary Spanish or French 1 or American Sign Language I</td>
<td>3.0-5.0</td>
</tr>
<tr>
<td>Required Degree Course</td>
<td>SPE-1A or SPE-3</td>
<td>Essentials of Public Speaking or Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Degree Course</td>
<td>SPA-2, 2X, 2S or FRN 2 or COU 81</td>
<td>Elementary Spanish or French 2, or American Sign Language II</td>
<td>3.0-5.0</td>
</tr>
<tr>
<td>Required Degree Course</td>
<td>FCS-14</td>
<td>Child Development</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Degree Course</td>
<td>COU-35 or SPE-35</td>
<td>Intercultural Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Degree Course</td>
<td>HIS-17A or 17B</td>
<td>United States History A or B</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Degree Course</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Degree Course</td>
<td>MAT-25F or MAT-12X</td>
<td>Pre-calculus or Number Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Degree Course</td>
<td>PHL-15S or ENG-2</td>
<td>Critical Thinking or Critical Thinking and Writing</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 30.0)

<table>
<thead>
<tr>
<th>ELECTIVES (Courses Numbered 1–99)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Elective</td>
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<tr>
<td>Elective</td>
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<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (22.0-27.0)

<table>
<thead>
<tr>
<th>REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences</td>
<td></td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences</td>
<td></td>
<td>Required Degree Course</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Humanities</td>
<td></td>
<td>Required Degree Course</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Ethnic Groups in the United States</td>
<td></td>
<td>Required Degree Course</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td></td>
<td>Required Degree Course</td>
<td>(3.0)</td>
</tr>
<tr>
<td>A. Written Composition</td>
<td></td>
<td>Required Degree Course</td>
<td>(3.0)</td>
</tr>
<tr>
<td>B. Communication and Analytical</td>
<td></td>
<td>Required Degree Course</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Thinking</td>
<td></td>
<td>Required Degree Course</td>
<td>(3.0)</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 3.0) |

TOTAL UNITS (≥ 60.0)

‡ These courses can be double-counted for both Required Degree Courses and Required General Education Courses.
CON’T OF
ELEMENTARY TEACHER PREPARATION—ASSOCIATE OF ARTS DEGREE (Formerly Liberal Studies)

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.

TRANSFER PREPARATION
The department recommends, but does not require, that students select one of the following options for transfer preparation after consulting with a Hartnell College counselor, ASSIST, and the college catalog for the schools indicated:

<table>
<thead>
<tr>
<th>Location</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRENO</td>
<td>Art 1A/B, 3, 6A/C, 10, 11A/C, Eng 31/33, Music 1 A/B, 2, or Tha 2A</td>
</tr>
<tr>
<td></td>
<td>Area C1 Arts/Humanities course 3.0</td>
</tr>
<tr>
<td></td>
<td>English 1B</td>
</tr>
<tr>
<td></td>
<td>College Reading and Composition 3.0</td>
</tr>
<tr>
<td></td>
<td>Math 12</td>
</tr>
<tr>
<td></td>
<td>Number Systems 3.0</td>
</tr>
<tr>
<td></td>
<td>CSS 43</td>
</tr>
<tr>
<td></td>
<td>Introduction to Computers 4.0</td>
</tr>
<tr>
<td>CAL POLY SAN LUIS OBIOSPO</td>
<td>Physical Science with lab (2 courses)</td>
</tr>
<tr>
<td></td>
<td>8.0</td>
</tr>
<tr>
<td></td>
<td>Life Science with lab (2 courses)</td>
</tr>
<tr>
<td></td>
<td>8.0</td>
</tr>
<tr>
<td></td>
<td>Family Studies/Health Ed/Nutrition/Physical Ed (1 course)</td>
</tr>
<tr>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Math 25</td>
</tr>
<tr>
<td></td>
<td>Pre-Calculus 3.0</td>
</tr>
<tr>
<td></td>
<td>Math 13</td>
</tr>
<tr>
<td></td>
<td>Statistics 5.0</td>
</tr>
<tr>
<td></td>
<td>Psychology 2</td>
</tr>
<tr>
<td></td>
<td>General Psychology 3.0</td>
</tr>
<tr>
<td>MONTEREY BAY</td>
<td>Biology 1, 5, 10, 11, 42</td>
</tr>
<tr>
<td></td>
<td>Life Science with a lab 3.0-5.0</td>
</tr>
<tr>
<td></td>
<td>Chem 1A, 22-60, Phy 2A, 4A, or 10</td>
</tr>
<tr>
<td></td>
<td>Physical Science Course 4.0</td>
</tr>
<tr>
<td></td>
<td>Ast 1, Gsg 1, Geol 1, 2, 6, Met 1, Ocn 1</td>
</tr>
<tr>
<td></td>
<td>Earth Science 4.0</td>
</tr>
<tr>
<td></td>
<td>One of the science classes must contain an underlined lab course</td>
</tr>
<tr>
<td></td>
<td>Math 12 or 25</td>
</tr>
<tr>
<td></td>
<td>Number Systems or Pre-Calculus 3.0</td>
</tr>
<tr>
<td></td>
<td>Art 1A/D, 2, 3, 6A, 8, 10, 11A, 12A, 14A, 15A, 20A, or 25</td>
</tr>
<tr>
<td></td>
<td>Integrated Art 3.0</td>
</tr>
<tr>
<td></td>
<td>Theater 1, 2A, 3, 5A, 6A, 7A, 10, 11, 12, 14, 30(A/B), 31 (A/B)</td>
</tr>
<tr>
<td></td>
<td>Integrated Theater 3.0</td>
</tr>
<tr>
<td></td>
<td>Music 1A, 1B, 1C, 2, 3, 5, 12, 13A, 16, 17A, 20, 22, 27, 50A+51A, 55A, or 55B</td>
</tr>
<tr>
<td></td>
<td>Integrated Music 3.0</td>
</tr>
<tr>
<td></td>
<td>Dance 1, 2, 20, 30, 31, 102, 110,132 or 133</td>
</tr>
<tr>
<td></td>
<td>Integrated Dance 3.0</td>
</tr>
<tr>
<td></td>
<td>Integrated Art, Theater, Music, and Dance must include one activity courses</td>
</tr>
<tr>
<td></td>
<td>and one lecture course.</td>
</tr>
<tr>
<td></td>
<td>CSS 43, 90, or LBT 90</td>
</tr>
<tr>
<td></td>
<td>Intro to Comp or Internet Literacy 3.0</td>
</tr>
<tr>
<td></td>
<td>Edu 1</td>
</tr>
<tr>
<td></td>
<td>Multicultural perspectives in Ed 3.0</td>
</tr>
<tr>
<td>SAN JOSE</td>
<td>Biology 11</td>
</tr>
<tr>
<td></td>
<td>Intro Human Anatomy and Phys 4.0</td>
</tr>
<tr>
<td></td>
<td>Math 12</td>
</tr>
<tr>
<td></td>
<td>Number Systems 3.0</td>
</tr>
<tr>
<td>SACRAMENTO</td>
<td>English 1B</td>
</tr>
<tr>
<td></td>
<td>College Reading and Comp 3.0</td>
</tr>
<tr>
<td></td>
<td>English 1B or 2</td>
</tr>
<tr>
<td></td>
<td>Critical Thinking Course 3.0</td>
</tr>
<tr>
<td></td>
<td>FCS 14</td>
</tr>
<tr>
<td></td>
<td>Child Development 3.0</td>
</tr>
</tbody>
</table>
ENGINEERING—ASSOCIATE OF SCIENCE DEGREE

PROGRAM DESCRIPTION

The Engineering program at Hartnell College covers the first two years of the traditional professional engineering program leading to a Bachelor’s Degree. It is nearly the same for all fields of engineering with specialization coming later in upper division coursework. The required core curriculum follows the Engineering Articulation Agreement developed by the Engineering Liaison Council (ELC) between community colleges and four-year public and private colleges and universities. This articulated agreement, commonly referred to as the Summit Agreement, states that students should be considered for admission upon completion of the engineering core curriculum and not necessarily the completion of all general education.

For detailed requirements for individual four-year institutions, students should contact the transfer institution and/or meet with a counselor for specific transfer course requirements in their major.

FOR MORE INFORMATION, CONTACT: Parvis Entekhabi at 831-755-6966, pentekhabi@hartnell.edu, TECH 8
Jim Butler at 831-755-6732, jbutter@hartnell.edu, MER 26

PROGRAM OUTCOMES

Upon successful completion of the Engineering program, a student should be able to:

- employ science and mathematical skills required for occupational needs.
- design a system, component, or process with supervision of a licensed engineer to meet desired needs.
- analyze engineering problems and make appropriate decisions with supervision of a licensed engineer.
- demonstrate appropriate technical communication skills (written, verbal and drawing).
- work effectively in a team, exercise initiative and function in a leadership role.

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>CHM-1A²</td>
<td>General Chemistry I</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>EGN-2</td>
<td>Engineering Graphics/CAD</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>EGN-6</td>
<td>Introduction to Circuits Analysis</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>EGN-8</td>
<td>Engineering Statics</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PHY-4A</td>
<td>General Physics/Mechanics</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PHY-4B</td>
<td>General Physics/Electricity and Magnetism</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PHY-4C</td>
<td>General Physics/Waves, Heat, Light and Modern Physics</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-3A²</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-3B²</td>
<td>Analytic Geometry and Calculus II</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-3C</td>
<td>Analytic Geometry and Calculus III</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-5</td>
<td>Differential Equations</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-4</td>
<td>Introduction to Scientific Programming</td>
<td>4.0</td>
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</table>

SUBTOTAL UNITS (34.0)

<table>
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<tr>
<th>✓ RESTRICTED MAJOR ELECTIVES (Select a minimum of 3.0 units from the following)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>EGN-1</td>
<td>Introduction to Engineering and Related Technologies</td>
<td>2.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>EGN-1A</td>
<td>Plane Surveying</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>EGN-4</td>
<td>Materials Science</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>EGN 45</td>
<td>Special Projects</td>
<td>1.0-3.0</td>
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<tr>
<td>Restricted Major Elective</td>
<td>MAT-4</td>
<td>Linear Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>CHM-1B</td>
<td>General Chemistry II</td>
<td>5.0</td>
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SUBTOTAL UNITS (≥ 3.0)

<table>
<thead>
<tr>
<th>✓ REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences</td>
<td>CHM-1A²</td>
<td>General Chemistry I</td>
<td>(5.0)</td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences</td>
<td>HIS-17A or HIS-17B</td>
<td>United States History A or United States History B</td>
<td>3.0</td>
</tr>
<tr>
<td>Humanities (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic Groups in the United States (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</td>
<td>MAT-3A²</td>
<td>Analytic Geometry and Calculus I</td>
<td>(4.0)</td>
</tr>
<tr>
<td>Communication and Analytical Thinking</td>
<td>MAT-3B²</td>
<td>Analytic Geometry and Calculus II</td>
<td>(4.0)</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 25.0)

TOTAL UNITS (≥ 60.0)

² These courses are also Required Major Courses

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
ENGINEERING TECHNOLOGY—ARCHITECTURAL EMPHASIS—ASSOCIATE OF SCIENCE DEGREE (Formerly Drafting; pending Chancellor’s Office Approval)

PROGRAM DESCRIPTION

Successful completion of the curriculum in Mechanical Emphasis prepares students for entry level positions as support technicians in the fields of mechanical and industrial engineering design.

As a result of ongoing changes in technology, the need to expand competencies, and changing transfer requirements, certificate and degree requirements may also change. If you note changes in degrees or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty on how best to complete the program in which you are enrolled.

FOR MORE INFORMATION, CONTACT: Parvis Entekhabi at 831-755-6966, pentekhabi@hartnell.edu, TECH 8

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>DRA-50</td>
<td>Introduction to Drafting Technology or Engineering Graphics/CAD</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>EG-52</td>
<td>Introduction to AutoCAD</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-53</td>
<td>Advanced AutoCAD</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-54</td>
<td>Auto/CAD 3D Modeling</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-70</td>
<td>Introduction to Architectural Drawing and Design</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-71</td>
<td>Computer-Aided Architectural Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-72</td>
<td>Advanced Computer-Aided Architectural Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-74</td>
<td>Architectural Print Reading</td>
<td>2.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥22.0)

<table>
<thead>
<tr>
<th>RESTRICTED MAJOR ELECTIVES (Select from list; 12.0 units required)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>DRA/CSS-66</td>
<td>Introduction to Geographic Information Systems (GIS)</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>CSS-43</td>
<td>Computer Systems and Information Literacy</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>DRA-56</td>
<td>Computer-Aided Electronics Aided Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>DRA-58</td>
<td>Computer-Aided Mechanical Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>DRA-64</td>
<td>Industrial Print Reading</td>
<td>2.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>CON-63</td>
<td>Construction Estimating</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>CON 50 A</td>
<td>Residential Construction: Building Layout</td>
<td>2.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>EGN-1</td>
<td>Introduction to Engineering and Related Technologies</td>
<td>2.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>WLD-150</td>
<td>Basic Welding</td>
<td>2.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥12.0)

<table>
<thead>
<tr>
<th>ELECTIVES (Courses Numbered 1–199)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥5.0)

<table>
<thead>
<tr>
<th>REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td>ART-71 or PHO-1</td>
<td>Introduction to 2D Digital Illustration or Introduction to Photography</td>
<td>3.0 3.0</td>
</tr>
<tr>
<td>Ethnic Groups in the United States (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</td>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
<tr>
<td>Communication and Analytical Thinking</td>
<td>LIB-5</td>
<td>Information Competency in the Sciences and Applied Technology</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥21.0)

TOTAL UNITS (≥60.0)

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam

†These courses are also Required Major Courses

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
**ENGINEERING TECHNOLOGY—ARCHITECTURAL EMPHASIS—CERTIFICATE OF ACHIEVEMENT**

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of “C” or better must be maintained in all certificate-applicable units.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>DRA-50</td>
<td>Introduction to Drafting Technology or Engineering Graphics/CAD</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>EGN-2</td>
<td></td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-52</td>
<td>Introduction To AutoCAD</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-53</td>
<td>Advanced AutoCAD</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-70</td>
<td>Introduction to Architectural Drawing and Design</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-71</td>
<td>Computer-Aided Architectural Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ENG-101*</td>
<td>Intermediate Composition and Reading or Composition and Grammar for ESL</td>
<td>(3.0)</td>
</tr>
<tr>
<td></td>
<td>ESL-101*</td>
<td></td>
<td>(5.0)</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-121**</td>
<td>Elementary Algebra</td>
<td>(5.0)</td>
</tr>
</tbody>
</table>

**RECOMMENDED MAJOR ELECTIVES (Select from list; none required)**

<table>
<thead>
<tr>
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<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended Major Elective</td>
<td>ART-71</td>
<td>2D Digital Illustration</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>CON-50A</td>
<td>Residential Construction: Building Layout</td>
<td>2.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>CON-63</td>
<td>Construction Estimating</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>DRA-54</td>
<td>AutoCAD 3DModeling</td>
<td>2.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>DRA/CSS-66</td>
<td>Introduction to Geographic Information Systems (GIS)</td>
<td>4.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>DRA-72</td>
<td>Advanced Computer-Aided Architectural Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>DRA-74</td>
<td>Architectural Print Reading</td>
<td>2.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 26.0)

*Eligibility for ENG-1A fulfills this requirement.

**Eligibility for MAT-123 or completion of any math in which MAT-121 is a prerequisite with a grade of “C” or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.
ENGINEERING TECHNOLOGY—MECHANICAL EMPHASIS—ASSOCIATE OF SCIENCE DEGREE
(Formerly Drafting; pending Chancellor’s Office Approval)

PROGRAM DESCRIPTION
Successful completion of the curriculum in Mechanical Emphasis prepares students for entry level positions as support technicians in the fields of mechanical and industrial engineering design.

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A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th><strong>REQUiRED MAJOR COURSES</strong></th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>DRA-50 or</td>
<td>Introduction to Drafting and Design</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>EGN-2</td>
<td>Design Technology or Engineering</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-52</td>
<td>Introduction to AutoCAD</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-53</td>
<td>Advanced AutoCAD</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-54</td>
<td>AutoCAD 3D Modeling</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-56</td>
<td>Computer-Aided Electronics Aided</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-58</td>
<td>Computer-Aided Mechanical Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-64</td>
<td>Industrial Print Reading</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td><strong>SUBTOTAL UNITS (≥ 19.0)</strong></td>
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<table>
<thead>
<tr>
<th><strong>RESTRICTED MAJOR ELECTIVES (Select from list; 12.0 units required)</strong></th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>DRA/CSS-66</td>
<td>Introduction to Geographic Information Systems (GIS)</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>CSS-43</td>
<td>Computer Systems and Information Literacy</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>DRA-71</td>
<td>Computer-Aided Architectural Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>DRA-72</td>
<td>Advanced Computer-Aided Architectural Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>DRA-74</td>
<td>Architectural Print Reading</td>
<td>2.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ELE-52</td>
<td>Electronic Fundamentals</td>
<td>5.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>EGN-1</td>
<td>Introduction to Engineering and Related Technologies</td>
<td>2.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>MEC-55</td>
<td>Applied Industrial Mechanics</td>
<td>2.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>WLD-150</td>
<td>Basic Welding</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td><strong>SUBTOTAL UNITS (≥ 12.0)</strong></td>
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<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>ELECTIVES (Courses Numbered 1–199)</strong></th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
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<td><strong>SUBTOTAL UNITS (≥ 8.0)</strong></td>
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<table>
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<th><strong>REQUiRED GENERAL EDUCATION COURSES</strong></th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td>ART-71 or PHO-1</td>
<td>Introduction to 2D Digital Illustration or Introduction to Photography</td>
<td>3.0</td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic Groups in the United States (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>A. Written Composition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</td>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
<tr>
<td>Communication and Analytical Thinking</td>
<td>LIB-5</td>
<td>Information Competency in the Sciences and Applied Technology</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td><strong>SUBTOTAL UNITS (≥ 21.0)</strong></td>
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<td></td>
<td><strong>TOTAL UNITS (≥ 60.0)</strong></td>
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</table>

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam

‡These courses are also Required Major Courses

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## ENGINEERING TECHNOLOGY—MECHANICAL EMPHASIS—CERTIFICATE OF ACHIEVEMENT

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of “C” or better must be maintained in all certificate-applicable units.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>DRA-50</td>
<td>Introduction to Drafting Technology</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>or EGN-2</td>
<td>Engineering Graphics/CAD</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-52</td>
<td>Introduction to AutoCAD</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-53</td>
<td>Advanced AutoCAD</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-54</td>
<td>AutoCAD 3D Modeling</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-58</td>
<td>Computer-Aided Mechanical Drafting</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-64</td>
<td>Industrial Print Reading</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ENG-101*</td>
<td>Intermediate Composition and Reading or English for Academic Purposes II</td>
<td>(3.0)</td>
</tr>
<tr>
<td></td>
<td>or ESL-101*</td>
<td></td>
<td>(5.0)</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-121**</td>
<td>Elementary Algebra</td>
<td>(5.0)</td>
</tr>
</tbody>
</table>

**RECOMMENDED MAJOR ELECTIVES (Select from list; none required)**

<table>
<thead>
<tr>
<th>✓ RECOMMENDED MAJOR ELECTIVES (Select from list; none required)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended Major Elective</td>
<td>DRA-56</td>
<td>Computer-Aided Electronic Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>DRA/CSS-62</td>
<td>Introduction to Geographic Information Systems (GIS)</td>
<td>4.0</td>
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<tr>
<td>Recommended Major Elective</td>
<td>WLD-150</td>
<td>Basic Welding</td>
<td>2.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>ELE-52</td>
<td>Electronic Fundamentals</td>
<td>5.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>MEC-55</td>
<td>Applied Industrial Mechanics</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Eligibility for ENG-1A fulfills this requirement.**

**Eligibility for MAT-123 or completion of any math in which MAT-121 is a prerequisite with a grade of “C” or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.**
**ENGLISH—ASSOCIATE OF ARTS DEGREE**

**PROGRAM DESCRIPTION**

The English program offers a study of composition, language, and literature designed to develop skills in reading perceptively, writing effectively, and thinking critically. The program prepares students for diverse careers in advertising, business, communications media, public relations, law, government service, and teaching. For detailed requirements for individual four-year institutions, students should contact the transfer institution and/or meet with a counselor for specific transfer course requirements in their major.

FOR MORE INFORMATION, CONTACT:
- Rhea Mendoza-Lewis at 831-755-6784, rmendoza@hartnell.edu, CAB 364
- Janet Pessagno at 831-755-6784, jpessagno@hartnell.edu, CAB 353
- Dan Peterson at 831-755-6784, dpeterson@hartnell.edu, CAB 368

**PROGRAM OUTCOMES**

Upon successful completion of the English program, a student should be able to:

- apply appropriate interpretive strategies to read, discuss, and analyze a variety of works of literature within any given genre and expository texts.
- analyze and evaluate major themes and techniques found in literature and expository texts by applying appropriate writing strategies and skills.
- demonstrate an appreciation for the aesthetic value of literature and expository texts from a diversity of cultural, historical, and ethnic perspectives.

A minimum of 60.0 semester units with a grade of "C" or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG-1A</td>
<td>College Literature and Composition</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-2</td>
<td>Critical Thinking and Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-10</td>
<td>Introduction to Linguistics</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-1B</td>
<td>Restricted Major Elective</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-22</td>
<td>Introduction to Poetry</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-25</td>
<td>American Indian Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-26</td>
<td>Chicano Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-24</td>
<td>The Short Story</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-44A</td>
<td>World Literature I</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-44B</td>
<td>World Literature II</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-46A</td>
<td>Survey of English Literature I</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-46B</td>
<td>Survey of English Literature II</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-47A</td>
<td>Survey of American Literature I</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-47B</td>
<td>Survey of American Literature II</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-17</td>
<td>The Contemporary Shakespeare</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-31</td>
<td>Beginning Creative Writing/Introduction to Magazine Publishing</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-33</td>
<td>Intermediate Creative Writing/Introduction to Magazine Publishing</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-41</td>
<td>Art of Steinbeck</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-48</td>
<td>Children's Literature</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a "C" or better or a score of 70% or greater on the mathematics competency exam

*These courses are also Required Major Courses

**TRANSFER STUDENTS:** Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.

Hartnell College Catalog – 2009/10
GENERAL STUDIES WITH AN AREA OF EMPHASIS—ASSOCIATE OF ARTS DEGREE

PROGRAM DESCRIPTION

The General Studies with an Area of Emphasis program, developed by the Counseling Discipline, is designed to meet the needs of students interested in graduating with an Associate level college degree by studying specific related disciplines of academic subjects (Natural Sciences, Social and Behavioral Sciences, Humanities, Ethnic Groups in the United States, or Language and Rationality).

The degree prepares the student for the following:

• a broad range of educational outcomes including reasoning skills, general education, basic skills, mathematical skills, communication skills and intercultural understandings desired by employers and required in a variety of entry level professional careers and or promotional opportunities.
• the completion of a major leading to a two-year college degree.
• a solid beginning in the transfer planning process through careful educational planning with a counselor.

FOR MORE INFORMATION, CONTACT: Counseling Discipline at 831-755-6820, CAB 165

PROGRAM OUTCOMES

Upon successful completion of the General Studies program, a student should be able to:

• read, write, speak and verbally comprehend at a college level.
• define information needs, access information efficiently and effectively, evaluate information critically, and use information ethically.
• use quantitative and logical reasoning to analyze information, evaluate ideas and solve problems.
• understand and respect the cultural, economic, social, political, biological and interdependence of global life.
• acquire an appreciation in and involvement in the creation or performance of the work of fine arts/music culture.

This degree provides an opportunity for students to earn an Associate of Arts (AA) degree in a comprehensive area of study and is intended for the student who may not be planning on transfer to a university in the near future.

A minimum of 60.0 semester units must be completed with a grade of “C” or better in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree.

CHOOSE A SINGLE AREA OF EMPHASIS: Complete 18 units in one of the areas of emphasis listed below (complete list of courses for each area is listed in the current year catalogue). For this degree, students cannot double count General Education courses. A minimum of three (3) courses from two (2) disciplines must be completed from within the chosen Area of Emphasis.

### Area of Emphasis: Natural Sciences

Courses in the natural sciences are those that examine the physical universe, its life forms, and its natural phenomena. Students will develop an appreciation and understanding of the scientific method and an understanding of the relationships between science and other human activities.

For this degree, students cannot double count General Education courses. A minimum of three (3) courses from two (2) disciplines must be completed from within the chosen Area of Emphasis.

<table>
<thead>
<tr>
<th>REQUIRED DEGREE COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture: ABT 90, 91</td>
</tr>
<tr>
<td>Anthropology: ANT 1</td>
</tr>
<tr>
<td>Astronomy: AST 1, 1L</td>
</tr>
<tr>
<td>Biology: BIO 1, 2, 3, 5, 6, 6L, 7, 10, 11, 12, 13, 20, 27, 30, 42, 47, 48</td>
</tr>
<tr>
<td>Chemistry: CHM 1A, 1B, 12A, 12B, 22, 23, 60</td>
</tr>
<tr>
<td>Geography: GEG 1</td>
</tr>
<tr>
<td>Geology: GEL 1, 2, 6, 25, 36</td>
</tr>
<tr>
<td>Meteorology: MET 1</td>
</tr>
<tr>
<td>Oceanography: OCN 1</td>
</tr>
<tr>
<td>Physics: PHY 2A, 2B, 4A, 4B, 4C, 10</td>
</tr>
</tbody>
</table>

**Natural Science Emphasis Units** 18.0

### Area of Emphasis: Social and Behavioral Sciences

Courses in the social and behavioral sciences are those that focus on people as members of society. Courses will stimulate critical thinking about the ways people act and have acted in response to their societies and will promote appreciation of how societies and social subgroups operate.

Students will develop an awareness of the method of inquiry used by the social and behavioral sciences.

For this degree, students cannot double count General Education courses. A minimum of three (3) courses from two (2) disciplines must be completed from within the chosen Area of Emphasis.

<table>
<thead>
<tr>
<th>REQUIRED DEGREE COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Justice: ADJ 1, 31</td>
</tr>
<tr>
<td>Agriculture: AGR 53</td>
</tr>
<tr>
<td>Anthropology: ANT 1, 2, 3, 10, 15, 20</td>
</tr>
<tr>
<td>Business: BUS 32</td>
</tr>
<tr>
<td>Counseling: COU 35</td>
</tr>
<tr>
<td>Economics: ECO 1, 5</td>
</tr>
<tr>
<td>Ethnic Studies: ETH 1, 2, 3, 4, 6, 12, 25</td>
</tr>
<tr>
<td>Family Consumer Science: FCS 14</td>
</tr>
<tr>
<td>Geography: GEG 1, 2, 10</td>
</tr>
<tr>
<td>Health Education: HED 2</td>
</tr>
<tr>
<td>Philosophy: PHL 2, 6, 8, 10, 15</td>
</tr>
<tr>
<td>Political Science: POL 1, 2, 3</td>
</tr>
<tr>
<td>Psychology: PSY 2 (1TA), 14, 15, 22, 33, 36, 41</td>
</tr>
<tr>
<td>Sociology: SOC 1, 5, 41, 42</td>
</tr>
<tr>
<td>Speech: SPE 35</td>
</tr>
</tbody>
</table>

**Social and Behavioral Science Emphasis Units** 18.0
CON’T OF GENERAL STUDIES WITH AN AREA OF EMPHASIS—ASSOCIATE OF ARTS DEGREE

### Area of Emphasis: Humanities
Courses in the humanities are those that study the cultural activities and artistic expressions of human beings.

Students will develop an awareness of the ways in which people throughout the ages and in different cultures have responded to themselves and the world around them in artistic and cultural creations and develop aesthetic understanding and an ability to make value judgments.

For this degree, students cannot double count General Education courses. A minimum of three (3) courses from two (2) disciplines must be completed from within the chosen Area of Emphasis.

<table>
<thead>
<tr>
<th>REQUIRED DEGREE COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anthropology:</strong> ANT 2, 3, 20</td>
</tr>
<tr>
<td><strong>Art:</strong> ART 1A, 1B, 3, 10, 12A, 15A, 15B, 73</td>
</tr>
<tr>
<td><strong>Counseling:</strong> COU 80, 81, 83</td>
</tr>
<tr>
<td><strong>English:</strong> ENG 1B, 10, 17, 22, 24, 25, 26, 31, 32, 33, 41, 44A,B, 46A, 46B, 47A, 47B, 50, 51</td>
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<tr>
<td><strong>Ethnic Studies:</strong> ETH 6, 12</td>
</tr>
<tr>
<td><strong>French:</strong> FRN 1, 2, 3, 4</td>
</tr>
<tr>
<td><strong>History:</strong> HIS 47, 48, 51</td>
</tr>
<tr>
<td><strong>Japanese:</strong> JPN 1C, 11</td>
</tr>
<tr>
<td><strong>Music:</strong> MUS 1A, 1B, 2, 5, 6, 7, 20, 21, 23.1, 23.2, 23.3, 23.4, 23.5, 25, 26, 29.1, 29.2, 29.3, 29.4, 29.5, 34.2, 34.3, 34.4, 41.2, 41.3, 41.4, 50A, 50B, 52A, 52B</td>
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<tr>
<td><strong>Philosophy:</strong> PHL 2, 6, 8, 10</td>
</tr>
<tr>
<td><strong>Photography:</strong> PHO 1, 2, 4</td>
</tr>
<tr>
<td><strong>Spanish:</strong> SPA 1, 1S, 1X, 2, 2S, 2X, 3, 3S, 4, 4S, 35</td>
</tr>
<tr>
<td><strong>Speech:</strong> SPE 18</td>
</tr>
<tr>
<td><strong>Theatre:</strong> THA-1, 3, 18, 110A, 122, 123, 142, 170, 172, 174, 180, 182, 190, 192</td>
</tr>
</tbody>
</table>

**Humanities Emphasis Units** 18.0

### Area of Emphasis: Ethnic Groups in the United States
Courses in the ethnic groups are those that study important themes and issues in United States history, society and cultural. Courses will address the theoretical and analytical issues relevant to understanding race, culture and ethnicity in our society.

Students will develop a framework for better understanding one’s particular cultural/historical identity in our society.

For this degree, students cannot double count General Education courses. A minimum of three (3) courses from two (2) disciplines must be completed from within the chosen Area of Emphasis.

<table>
<thead>
<tr>
<th>REQUIRED DEGREE COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anthropology:</strong> ANT 10, 15</td>
</tr>
<tr>
<td><strong>Counseling:</strong> COU 35</td>
</tr>
<tr>
<td><strong>Education:</strong> EDU 1</td>
</tr>
<tr>
<td><strong>English:</strong> ENG 1A Multicultural Perspective, ENG 1B Multicultural Perspective, 25, 26</td>
</tr>
<tr>
<td><strong>Ethnic Studies:</strong> ETH 1, 2, 3, 6, 12, 25</td>
</tr>
<tr>
<td><strong>Health Education:</strong> HED 5</td>
</tr>
<tr>
<td><strong>Health Services:</strong> HES 30</td>
</tr>
<tr>
<td><strong>History:</strong> HIS 10, 46A, 46B, 49A, 49B</td>
</tr>
<tr>
<td><strong>Music:</strong> MUS 5, 6, 7</td>
</tr>
<tr>
<td><strong>Sociology:</strong> SOC 42</td>
</tr>
<tr>
<td><strong>Speech:</strong> SPE 35</td>
</tr>
</tbody>
</table>

**Ethnic Groups in the United States Emphasis Units** 18.0

### Area of Emphasis: Language and Rationality
Courses in language and rationality are those that study English expository writing and composition, communication, and analytical thinking. Courses include oral communication, mathematics, logic, statistics, computer languages and related disciplines.

Students will develop the principles and applications of language toward logical thought, clear and precise expression, and critical evaluation of communication in whatever symbol system the students used.

For this degree, students cannot double count General Education courses. A minimum of three (3) courses from two (2) disciplines must be completed from within the chosen Area of Emphasis.

<table>
<thead>
<tr>
<th>REQUIRED DEGREE COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Business:</strong> BUS 1A, 5</td>
</tr>
<tr>
<td><strong>Computer Science:</strong> CSS 1, 2A, 2B, 3, 4, 6, 12, 31</td>
</tr>
<tr>
<td><strong>Counseling:</strong> COU 23, 25, 27, 35, 60, 81, 83</td>
</tr>
<tr>
<td><strong>English:</strong> ENG 1B, ENG 1B Multicultural Perspective, 2, 10</td>
</tr>
<tr>
<td><strong>French:</strong> FRN 2, 3, 4</td>
</tr>
<tr>
<td><strong>Library:</strong> LIB 5, 6, 7</td>
</tr>
<tr>
<td><strong>Mathematics:</strong> MAT 2, 3A, 3B, 3C, 4, 5, 10, 12, 13, 16, 24, 25, 121, 122, 123</td>
</tr>
<tr>
<td><strong>Philosophy:</strong> PHL 15</td>
</tr>
<tr>
<td><strong>Spanish:</strong> SPA 1, 1S, 1X, 2, 2S, 2X, 3, 3S, 4, 4S</td>
</tr>
<tr>
<td><strong>Speech:</strong> SPE 1A, 3, 5, 8, 35</td>
</tr>
</tbody>
</table>

**Language and Rationality Emphasis Units** 18.0
CON’T OF GENERAL STUDIES WITH AN AREA OF EMPHASIS—ASSOCIATE OF ARTS DEGREE

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ELECTIVES (Courses Numbered 1-199)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>REQUIRED GENERAL EDUCATION COURSES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Natural Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Social &amp; Behavioral Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Humanities (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Ethnic Groups in the United States (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Language and Rationality (9 Units)</td>
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</tr>
<tr>
<td></td>
<td>A. Written Composition</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B. Communication and Analytical Thinking</td>
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</table>

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ENG-1A College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>MAT-123 Communication and Analytical Thinking</td>
<td>5.0</td>
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</tbody>
</table>

Elective Units 21.0

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam.

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
HISTORY—ASSOCIATE OF ARTS DEGREE

PROGRAM DESCRIPTION

History, in the broad sense, is the study of all human experience. It examines people, institutions, ideas, and events through past and into the future. The study of history develops cultural literacy, critical thinking, and other skills while helping to understand today and plan for tomorrow. The discipline provides us with a better understanding of ourselves as individuals and as a society. In the study of history it is more important to learn the skills of finding, interpreting, and relating historical information than it is to simply to memorize historical data. Through the study of history a student can acquire the techniques of gathering and applying information to gain a perspective on the human condition.

Fields for which BA graduates in history are qualified are law, journalism, writing, foreign service, consulting, teaching, archiving, researching, and museum curating. For detailed requirements for individual four-year institutions, students should contact the transfer institution and/or meet with a counselor for specific transfer course requirements in their major.

FOR MORE INFORMATION, CONTACT: Ann deJesus-Riley at 831-755-6787, adejesus@hartnell.edu, CAB 323

PROGRAM OUTCOMES

Upon successful completion of the History program, a student should be able to:

- demonstrate an understanding of the processes, people, and events in the multicultural histories of the United States.
- apply critical thinking skills in reading, comprehending, and interpreting historical scholarship.
- employ historical research methods to address historical questions using primary and secondary sources.

A minimum of 60.0 semester units with a grade of "C" or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS-17A or HIS-21</td>
<td>United States History A or Social and Political Histories of the US</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS-17B</td>
<td>United States History B</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS-5A</td>
<td>World History A</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS-5B</td>
<td>World History B</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥12.0)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS-40</td>
<td>History of Women in the US</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS-49A</td>
<td>Chicano History A</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS-49B</td>
<td>Chicano History B</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS-46A</td>
<td>Race and Ethnicity in American History A</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS-46B</td>
<td>Race and Ethnicity in American History B</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS-47</td>
<td>History of Mexico</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS-4A</td>
<td>Western Civilization A</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS-4B</td>
<td>Western Civilization B</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS-10</td>
<td>History of California</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 6.0)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETH-1</td>
<td>Introduction to Ethnic Studies</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT-13</td>
<td>Elementary Statistics</td>
<td>5.0</td>
</tr>
<tr>
<td>SPE-1A</td>
<td>Essentials of Public Speaking</td>
<td>3.0</td>
</tr>
<tr>
<td>ANT-2</td>
<td>Introduction to Anthropology: Cultural</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 20.0)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 20.0)

TOTAL UNITS (≥ 60.0)

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a 'C' or better or a score of 70% or greater on the mathematics competency exam

†These courses are also Required Major Courses

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
INDUSTRIAL TECHNOLOGY—INDUSTRIAL MECHANICS—ASSOCIATE OF SCIENCE DEGREE

PROGRAM DESCRIPTION

Industrial Technology is an inter-disciplinary program of study designed to prepare the student for transfer to four-year college and university programs of the same name or for positions of employment requiring a general background in the application of technology. Courses leading to either a certificate or an Associate Degree are selected from a variety of technology disciplines.

As a result of ongoing changes in technology, the need to expand competencies, and changing transfer requirements, certificate and degree requirements may also change. If you note changes in degrees or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty on how best to complete the program in which you are enrolled.

FOR MORE INFORMATION, CONTACT: Career and Economic Development at 755-6960, TECH 11

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>DRA-64</td>
<td>Industrial Print Reading</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MEC-51</td>
<td>Engine Theory</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MEC-53</td>
<td>Industrial Electricity</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MEC-54</td>
<td>Mechanical Skills</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MEC-55</td>
<td>Applied Industrial Mechanics</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MEC-56</td>
<td>Hydraulics &amp; Pneumatics</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MEC-57</td>
<td>Commercial Refrigeration</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MEC-60</td>
<td>Small Engine Repair &amp; Maintenance</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>WLD-150</td>
<td>Basic Welding</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>WLD-151</td>
<td>Gas &amp; TIG Welding</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>WLD-52</td>
<td>Sheet Metal Fabrication</td>
<td>2.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (27.0)

<table>
<thead>
<tr>
<th>✓ RESTRICTED MAJOR ELECTIVES (Select a minimum of 3.0 units from the following)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>DRA-50</td>
<td>Introduction to Drafting and Design Technology</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ELE-57</td>
<td>Instruments and Controls</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>MEC-59</td>
<td>Industrial Materials &amp; Processes</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥3.0)

<table>
<thead>
<tr>
<th>✓ ELECTIVES (Courses Numbered 1–199)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
<td></td>
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<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
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</table>

SUBTOTAL UNITS (≥9.0)

<table>
<thead>
<tr>
<th>✓ REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic Groups in the United States (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking (Select a minimum of 1 unit from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication and Analytical Thinking</td>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥21.0)

TOTAL UNITS (≥60.0)

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam

‡ These courses are also Required Major Courses

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
INDUSTRIAL TECHNOLOGY—INDUSTRIAL MECHANICS—CERTIFICATE OF ACHIEVEMENT

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of “C” or better must be maintained in all certificate-applicable units.

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<tr>
<td>Required Major Course</td>
<td>DRA-64</td>
<td>Industrial Print Reading</td>
<td>2.0</td>
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<tr>
<td>Required Major Course</td>
<td>MEC-51</td>
<td>Engine Theory</td>
<td>3.0</td>
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<td>Required Major Course</td>
<td>MEC-53</td>
<td>Industrial Electricity</td>
<td>3.0</td>
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<td>Required Major Course</td>
<td>MEC-54</td>
<td>Mechanical Skills</td>
<td>3.0</td>
</tr>
<tr>
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<td>MEC-55</td>
<td>Applied Industrial Mechanics</td>
<td>2.0</td>
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<td>MEC-56</td>
<td>Hydraulics &amp; Pneumatics</td>
<td>3.0</td>
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<tr>
<td>Required Major Course</td>
<td>MEC-57</td>
<td>Commercial Refrigeration</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MEC-60</td>
<td>Small Engine Repair &amp; Maintenance</td>
<td>2.0</td>
</tr>
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<td>Required Major Course</td>
<td>WLD-150</td>
<td>Basic Welding</td>
<td>2.0</td>
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<td>WLD-151</td>
<td>Gas &amp; TIG Welding</td>
<td>2.0</td>
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<td>Required Major Course</td>
<td>WLD-52</td>
<td>Sheet Metal Fabrication</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ENG-101*</td>
<td>Intermediate Composition and Reading</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or ESL-101*</td>
<td>English for Academic Purposes II</td>
<td></td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-151**</td>
<td>Technical Mathematics</td>
<td></td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (27.0)

<table>
<thead>
<tr>
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<td>Instruments and Controls</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>MEC-59</td>
<td>Industrial Materials &amp; Processes</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (6.0)

TOTAL UNITS (34.0)

*Eligibility for ENG-1A fulfills this requirement.

**Eligibility for MAT-123 or completion of any math in which MAT-121 is a prerequisite with a grade of “C” or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.
**INDUSTRIAL TECHNOLOGY—INDUSTRIAL TECHNICIAN—ASSOCIATE OF SCIENCE DEGREE**

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**FOR MORE INFORMATION, CONTACT:** Career and Economic Development at 755-6960, TECH 11

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<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>CSS-43</td>
<td>Computer Systems and Information Literacy</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-56</td>
<td>Computer-Aided Electronic Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-64</td>
<td>Industrial Print Reading</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ELE-52</td>
<td>Electronic Fundamentals</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ELE-57</td>
<td>Instruments and Controls</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>EGN-4</td>
<td>Materials Science</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MEC-56</td>
<td>Hydraulics &amp; Pneumatics</td>
<td>3.0</td>
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<td>MEC-57</td>
<td>Commercial Refrigeration</td>
<td>3.0</td>
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<td>MEC-59</td>
<td>Industrial Materials &amp; Processes</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PHY-10</td>
<td>Introduction to Physics</td>
<td>3.0</td>
</tr>
</tbody>
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<td>3.0</td>
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<td>Restricted Major Elective</td>
<td>MEC-55</td>
<td>Applied Industrial Mechanics</td>
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<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>MEC-60</td>
<td>Small Engine Repair &amp; Maintenance</td>
<td>2.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>MEC-99</td>
<td>Cooperative Work Experience Education</td>
<td>2.0-4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>WLD-150</td>
<td>Basic Welding</td>
<td>2.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>WLD-151</td>
<td>Gas &amp; TIG Welding</td>
<td>2.0</td>
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<tr>
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</tr>
<tr>
<td>Ethnic Groups in the United States (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</td>
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<td>5.0</td>
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<th>Course Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Communication and Analytical Thinking (Select a minimum of 1 unit from catalog GENERAL EDUCATION REQUIREMENTS)</td>
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† These courses are also Required Major Courses

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### INDUSTRIAL TECHNOLOGY—INDUSTRIAL TECHNICIAN—CERTIFICATE OF ACHIEVEMENT

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<td>4.0</td>
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<tr>
<td>DRA-56</td>
<td>Computer-Aided Electronic Drawing</td>
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<tr>
<td>DRA-64</td>
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<td>ELE-52</td>
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<td>3.0</td>
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<td>Introduction to Physics</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-101*</td>
<td>Intermediate Composition and Reading or English</td>
<td>(3.0)</td>
</tr>
<tr>
<td>MAT-151**</td>
<td>Technical Mathematics</td>
<td>(3.0)</td>
</tr>
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<td>Cooperative Work Experience Education</td>
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<td>WLD-151</td>
<td>Gas &amp; TIG Welding</td>
<td>2.0</td>
</tr>
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</table>

*Eligibility for ENG-1A fulfills this requirement.

**Eligibility for MAT-123 or completion of any math in which MAT-121 is a prerequisite with a grade of “C” or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.
INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM (IGETC)—CERTIFICATE OF ACHIEVEMENT

The Certificate of Achievement in Intersegmental General Education Transfer Curriculum (IGETC), developed by the Counseling Discipline, will be awarded upon completion of the IGETC requirements as outlined on the catalog year’s IGETC sheet. Students must complete 34-37 units, which are distributed among six areas. IGETC requirements are designed to be taken with a major area of concentration and elective courses in preparation for transfer to a California State University or a University of California campus. This certificate recognizes the completion of lower-division general education requirements for IGETC. For many majors, students are encouraged to complete the IGETC pattern; however, it is not required for admission to the CSU or UC. An official petition must be filed with the Admission and Records Office prior to the graduation deadlines as stated in the Academic Calendar. Certification of the IGETC will be indicated on the student’s transcript. (Refer to IGETC pages in this catalog.)

FOR MORE INFORMATION CONTACT: Counseling Discipline at 831-755-6820
LIBERAL ARTS WITH AN AREA OF EMPHASIS—ASSOCIATE OF ARTS DEGREE

PROGRAM DESCRIPTION
This degree is designed for transfer students pursuing an area of study requiring only introductory lower-division major preparation courses within a broader liberal arts breadth pattern and transferring to a California State University (CSU), University of California (UC).

This degree represents only 12 of the 26 general areas of study identified in “Exploring Majors” on the www.assist.org transfer web site. These 12 general areas of emphasis are outlined below. Selecting courses from these general areas will prepare students to transfer to a variety of majors. This degree is an interdisciplinary approach allowing students to meet their individual transfer goals and lower division CSU-GE breadth or UC/CSU IGETC patterns.

Undecided students and those pursuing one of the other areas of study requiring a specific sequence or pattern of courses are encouraged to identify a major area of study as early as possible and follow requirements to the four-year university in consultation with a Hartnell College counselor. Those 14 other areas not included in this degree are: Agricultural Sciences, Architecture and Environmental Design, Biological Sciences, Business and Economics, Chemistry, Computer Science, Engineering, Environmental Studies and Sciences, Health and Physical Education, Mathematics, Media/film and television, Physical Sciences, Physics, and Teacher Education.

FOR MORE INFORMATION, CONTACT: Counseling Discipline at 831-755-6820, CAB 165

PROGRAM OUTCOMES
Upon successful completion of the Liberal Arts program, a student should be able to:

- read, write, speak and verbally comprehend at a college level.
- define information needs, access information efficiently and effectively, evaluate information critically, and use information ethically.
- use quantitative and logical reasoning to analyze information evaluate ideas and solve problems.
- understand and respect the cultural, economic, social, political, biological and interdependence of global life.
- acquire an appreciation in and involvement in the creation or performance of the work of fine arts/music culture.

A minimum of 60.0 transferable semester units must be completed with a grade of "C" or better in all degree-applicable units.

1. Choose either A. CSU-GE or B. IGETC for the General Education pattern related to your educational goal:
   A. Minimum units to meet CSU-GE breadth certification requirements
   B. Minimum units to meet IGETC certification requirements

2. AREAS OF EMPHASIS: Choose a single AREA OF EMPHASIS listed below. A minimum of three (3) courses from two (2) disciplines must be completed from within the chosen Area of Emphasis.

3. Include a 3-unit Hartnell College Ethnic Groups in the United States course.

4. Complete any electives necessary to total 60 transferable units required by the Universities.

CHOOSE A SINGLE AREA OF EMPHASIS: Complete 18 units in one of the areas of emphasis listed below. A minimum of three (3) courses from two (2) disciplines must be completed from within the Area of Emphasis.

Area of Emphasis: ANTHROPOLOGY
Anthropology is the study of humans and human societies. Branches of anthropology include cultural anthropology, physical anthropology, linguistic anthropology, and archaeology.

A minimum of three (3) courses from two (2) disciplines must be completed from within the chosen Area of Emphasis.

**REQUIRED DEGREE COURSES**
- Anthropology – ANT 1, 2, 3, 10, 15, 20
- Math – MAT 13
- Psychology – PST 2 (1A)
- Sociology – SOC 1

**Anthropology Emphasis Units (≥ 18.0)**

Area of Emphasis: ART AND DESIGN
The study of art and design includes drawing, painting, printmaking, sculpture/installation (wood, metal, ceramics, and mixed media), video art, performance art and interactive digital art, and art history.

A minimum of three (3) courses from two (2) disciplines must be completed from within the chosen Area of Emphasis.

**REQUIRED DEGREE COURSES**
- Art – ART 1A, 1B, 10, 25, 32A, 3, 6A, 15A
- Photography – PHO- 1, 2
- Digital Art – ART 70, 72, 73

**Art and Design Emphasis Units(≥ 18.0)**

Area of Emphasis: COMMUNICATION
The study of communication focuses on how people produce and process messages, and how their message options and decisions affect others’ thoughts, attitudes, and behaviors.

A minimum of three (3) courses from two (2) disciplines must be completed from within the chosen Area of Emphasis.

**REQUIRED DEGREE COURSES**
- English – ENG 1B, 2, 10
- Philosophy – PHL 15
- Speech – SPE 1A, 3, 5, 8, 18, 35 or COU 35
- Theater Arts – THA 18

**Communication Emphasis Units (≥ 18.0)**

Area of Emphasis: CULTURE AND SOCIETY
The study of the diversity of human cultures is an inter-disciplinary activity. Cultural and ethnic study includes aspects of history, language, literature, sociology, anthropology, art and art history, and other humanities and social sciences.

A minimum of three (3) courses from two (2) disciplines must be completed from within the chosen Area of Emphasis.

**REQUIRED DEGREE COURSES**
- Anthropology – ANT 2
- Family and Consumer Studies – FCS 14
- Child Development – ECE 2, 12A
- Criminal Justice – ADJ 1, 2, 3, 4, 5, 8
- Ethnic Studies – ETH 3, 4
- Geography – UEG 2
- Mathematics – MAT 13
- Psychology – PST 2 (1A)
- Sociology – SOC 1, 5

**Culture and Society Emphasis Units(≥ 18.0)**
### CON’T OF LIBERAL ARTS WITH AN AREA OF EMPHASIS—ASSOCIATE OF ARTS DEGREE

#### Area of Emphasis: HISTORY
The study of history is the interpretation of human affairs and institutions as they change in time, and provides a necessary perspective on the contemporary world.

**A minimum of three (3) courses from two (2) disciplines must be completed from within the chosen Area of Emphasis.**

- **Required Degree Courses**
  - Art – ART 1A, 1B
  - Geography – GEO 2
  - History – HIS 1A, 1B, 1C, 1D, 10, 11, 12A, 12B, 12C, 12D
  - Philosophy – PHL 2, 6, 8

**History Emphasis Units (≥ 18.0)**

#### Area of Emphasis: Humanities
The humanities include, but are not limited to, history; literature; philosophy and ethics; foreign languages and cultures; linguistics; jurisprudence or philosophy of law; archaeology; comparative religion; the history, theory, and criticism of the arts; and those aspects of the social sciences (anthropology, sociology, psychology, political science, government, and economics) that use historical and interpretive rather than quantitative methods. The humanities enable us to reflect upon our lives and ask fundamental questions of value, purpose, and meaning in a rigorous and systematic way.

**A minimum of three (3) courses from two (2) disciplines must be completed from within the chosen Area of Emphasis.**

- **Required Degree Courses**
  - Anthropology – ANT 1, 2, 3
  - Art – ART 1A, 1B, 1C, 1D, 10, 11, 12A, 12B, 12C, 12D
  - History – HIS 1A, 1B, 1C, 1D, 10, 11, 12A, 12B, 12C, 12D
  - Geography – GEO 2
  - Philosophy – PHL 2, 6, 8

**Humanities Emphasis Units (≥ 18.0)**

#### Area of Emphasis: LANGUAGES AND LITERATURE
The study of languages and literature includes the history of literature, the geographical and cultural regions of language and writing, the methods and theories of literary and cultural analysis, and training in creative and critical writing.

**A minimum of three (3) courses from two (2) disciplines must be completed from within the chosen Area of Emphasis.**

- **Required Degree Courses**
  - American Sign Language – COU-80, 81, 83
  - French – FRE 1, 2, 3, 4
  - Japanese – JPN 10
  - Spanish – SPA 1A, 1B, 2, 3, 4, 15, 25, 25A, 15, 35, 35
  - Geography – GEO 2

**Languages and Literature Emphasis Units (≥ 18.0)**

#### Area of Emphasis: PERFORMING ARTS
The performing arts offer opportunities in theatre, dance, music, interdisciplinary arts, musical theatre, and arts criticism.

**A minimum of three (3) courses from two (2) disciplines must be completed from within the chosen Area of Emphasis.**

- **Required Degree Courses**
  - Music – MUS 1A, 1B, 2, 3, 5, 6, 7, 50A, 50B, 52A, 52B
  - Theater Arts – THA 1, 3, 10, 11, 16, 18

**Performing Arts Emphasis Units (≥ 18.0)**

#### Area of Emphasis: PHILOSOPHY
Philosophy is a quest for a comprehensive understanding of human existence. The objective of philosophy is to consider the rational justification of logical inferences, human values, criteria for establishing the claims of knowledge and certainty, and interpretations of the nature of reality.

**A minimum of three (3) courses from two (2) disciplines must be completed from within the chosen Area of Emphasis.**

- **Required Degree Courses**
  - Philosophy – PHL 2, 6, 8, 10, 15
  - History – HIS 4A, 4B, 47
  - Mathematics – MAT 13

**Philosophy Emphasis Units (≥ 18.0)**

#### Area of Emphasis: POLITICAL SCIENCE
Political Science is a social science concerned with the description and analysis of political, and especially governmental, institutions and processes. Increasingly, the emphasis is being placed on how governments deal with specific policy problems, such as war and peace, poverty, crime, education, energy, pollution, or inter-group relations, and on the factors that affect these problems. The study of political science provides one with the concepts, theories and methods necessary to analyze these policy problems scientifically.

**A minimum of three (3) courses from two (2) disciplines must be completed from within the chosen Area of Emphasis.**

- **Required Degree Courses**
  - Economics – ECO 1A, 1B
  - Geography – GEO 2
  - History – HIS 4A, 4B, 17A, 17B
  - Mathematics – MAT 13
  - Political Science – POL 1, 2, 3, 5

**Political Science Emphasis Units (≥ 18.0)**

#### Area of Emphasis: PSYCHOLOGY
Psychology is the study of human behavior. Psychologists study the biological, physiological and genetic causes of behavior, as well as the emotional, social, and developmental factors involved.

**A minimum of three (3) courses from two (2) disciplines must be completed from within the chosen Area of Emphasis.**

- **Required Degree Courses**
  - Anthropology – ANT 1, 2
  - Biology – BIO 5, 11
  - Mathematics – MAT 13
  - Psychology – PSY 2(1A), 14, 15, 22, 33
  - Sociology – SOC 1, 5, 41, 42

**Psychology Emphasis Units (≥ 18.0)**
CON’T OF LIBERAL ARTS WITH AN AREA OF EMPHASIS—ASSOCIATE OF ARTS DEGREE

Area of Emphasis: SOCIOLOGY AND SOCIAL SCIENCES
Social Sciences refer to any discipline or branch of science that deals with the social and cultural aspects of human behavior. The Social Sciences generally include Economics, Political Science, Sociology, and History, and may include Cultural Anthropology, Geography, Psychology, and Social Psychology.

A minimum of three (3) courses from two (2) disciplines must be completed from within the chosen Area of Emphasis.

<table>
<thead>
<tr>
<th>REQUIRED DEGREE COURSES</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Administration of Justice – ADJ 1, 2, 3, 51</td>
<td></td>
</tr>
<tr>
<td>Anthropology – ANT 1, 2, 3</td>
<td></td>
</tr>
<tr>
<td>Sociology – SOC 1, 5, 41, 42</td>
<td></td>
</tr>
<tr>
<td>Economics – ECO 1, 5</td>
<td></td>
</tr>
<tr>
<td>Political Science – POL 1, 2, 3, 5</td>
<td></td>
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<tr>
<td>Geography – GEG 1, 2</td>
<td></td>
</tr>
<tr>
<td>Family and Consumer Studies – FCS 14</td>
<td></td>
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<tr>
<td>Mathematics – MAT 13</td>
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</tbody>
</table>

Sociology and Social Sciences Emphasis Units (≥ 18.0)

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<thead>
<tr>
<th>ELECTIVES (Courses Numbered 1-99)</th>
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<tbody>
<tr>
<td>Course #</td>
<td>Course Title</td>
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</table>

Elective Units (≥ 3.0)

<table>
<thead>
<tr>
<th>REQUIRED GENERAL EDUCATION COURSES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences (Select any CSU-GE or IGETC Science course to fulfill this requirement.)</td>
<td>(3)</td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences (Select any CSU-GE or IGETC Social Science course to fulfill this requirement.)</td>
<td>(3)</td>
</tr>
<tr>
<td>Humanities (Select any CSU-GE or IGETC Humanities course to fulfill this requirement.)</td>
<td>(3)</td>
</tr>
<tr>
<td>Ethnic Groups in the United States (Select any Hartnell College Ethnic Groups in the United States course within CSU-GE or IGETC to fulfill this requirement.)</td>
<td>(3)</td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENG-1A</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking (Select any CSU-GE or IGETC critical thinking and quantitative reasoning courses to fulfill this requirement.)</td>
<td></td>
</tr>
</tbody>
</table>

GE Units (≥ 21.0)

TOTAL UNITS (≥ 60.0)

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
MATHEMATICS—ASSOCIATE OF SCIENCE DEGREE

PROGRAM DESCRIPTION

The Mathematics program offers course work in all levels of mathematics from arithmetic through differential equations and linear algebra. Students seeking improvement in their basic mathematical skills and those desiring development of advanced mathematical methods can all find meaningful activities in the mathematics program. While there are job opportunities in pure mathematics, there are even more in applied mathematics, statistics, engineering, and other technical fields relying heavily on mathematics. Positions for which four-year graduates in mathematics are qualified can be found in the fields of business, computers, teaching, and research.

For detailed requirements for individual four-year institutions, students should contact the transfer institution and/or meet with a counselor for specific transfer course requirements in their major.

FOR MORE INFORMATION, CONTACT: Leticia Contreras at 831-770-7053, lcontreras@hartnell.edu, CAB 287
Kelly Locke at 831-755-6758, klocke@hartnell.edu, CAB 262
Gregory Perkins at 831-755-6705, gperkins@hartnell.edu, CAB 283

PROGRAM OUTCOMES

Upon successful completion of the Mathematics program, a student should be able to:

• meet the lower division math major requirements when transferring to a four-year university.
• successfully complete junior level Math/Science courses.
• report that the Hartnell College Math program adequately prepared them for their course of study.

A minimum of 60.0 semester units with a grade of "C" or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

### REQUIRED MAJOR COURSES

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT-3A</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>MAT-3B</td>
<td>Analytic Geometry and Calculus II</td>
<td>4.0</td>
</tr>
<tr>
<td>MAT-3C</td>
<td>Analytic Geometry and Calculus III</td>
<td>4.0</td>
</tr>
<tr>
<td>MAT-4‡</td>
<td>Linear Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT-5‡</td>
<td>Differential Equations</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (12.0)**

### RESTRICTED MAJOR ELECTIVES (Select a minimum of 3.0 units from list)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>MAT-12</td>
<td>Number Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT-13</td>
<td>Elementary Statistics</td>
<td>5.0</td>
</tr>
<tr>
<td>MAT-16</td>
<td>Finite Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>PHY-2A</td>
<td>College Physics I</td>
<td>4.0</td>
</tr>
<tr>
<td>PHY-4A</td>
<td>General Physics/Mechanics</td>
<td>4.0</td>
</tr>
<tr>
<td>CHM-1A</td>
<td>General Chemistry I</td>
<td>5.0</td>
</tr>
<tr>
<td>EGN-2</td>
<td>Engineering Graphics/CAD</td>
<td>4.0</td>
</tr>
<tr>
<td>PHL-15</td>
<td>Critical Thinking and Logic</td>
<td>3.0</td>
</tr>
<tr>
<td>CSS-4</td>
<td>Introduction to Scientific Programming</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (≥3.0)**

### ELECTIVES (Courses Numbered 1–199)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>Elective</td>
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<td>Elective</td>
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<td>Elective</td>
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**SUBTOTAL UNITS (≥24.0)**

### REQUIRED GENERAL EDUCATION COURSES

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT-4‡</td>
<td>Linear Algebra</td>
<td>(3.0)</td>
</tr>
<tr>
<td>MAT-5‡</td>
<td>Differential Equations</td>
<td>(3.0)</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (≥21.0)**

**TOTAL UNITS (≥60.0)**

‡ These courses are also Required Major Courses

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
MUSIC—ASSOCIATE OF ARTS DEGREE

PROGRAM DESCRIPTION

The Music Program offers coursework and ensembles that embrace the diversity of our valley. Music is the universal language of the global village of the 21st century. It forms an integral part of our lives, from the musical "logos" that introduce every media program, to the songs and dances that provide identity to our diverse backgrounds. Study and participation in music has proven to further not only creativity and critical thinking, but also our sense of cooperation and community. At Hartnell, performance opportunities are available for all students in a wide range of vocal and instrumental ensembles. In addition, many courses are designed for students with no previous training in music. The department offers courses that prepare music majors for transfer to four-year universities as well as many courses for the general student.

The AA Degree in Music prepares students for transfer and careers in the following fields: credentialed school instruction; private studio instruction; vocal or instrumental performance; composition or arranging for film, television, or multimedia; sound engineering; conducting; college or university instruction; arts and education administration; and music journalism. For detailed requirements for individual four-year institutions, students should contact the transfer institution and/or meet with a counselor for specific transfer course requirements in their major.

FOR MORE INFORMATION, CONTACT: Dr. Carl Christensen at 831-755-6906, cchristensen@hartnell.edu, PA 123

PROGRAM OUTCOMES

Upon successful completion of the Music program, a student should be able to:

- analyze the harmonic structure of music from the Common Practice Period.
- sight-sing intermediate level tonal melodies.
- demonstrate piano proficiency at the lower-intermediate level.
- perform collaboratively in an instrumental or vocal ensemble.
- aurally identify the genre and stylistic period of examples from the western art music tradition.

A minimum of 60.0 semester units with a grade of "C" or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>MUS-1A or MUS-1B</td>
<td>Music Appreciation—Historical or Music Appreciation—Genre Perspective</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MUS-50A</td>
<td>Harmony I</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MUS-50B</td>
<td>Harmony II</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MUS-51A</td>
<td>Musicianship I</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MUS-51B</td>
<td>Musicianship II</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MUS-52A</td>
<td>Harmony III</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MUS-52B</td>
<td>Harmony IV</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MUS-53A</td>
<td>Musicianship III</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MUS-53B</td>
<td>Musicianship IV</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Courses - PIANO</td>
<td>MUS-11A or MUS-13B or MUS-14 or MUS-15</td>
<td>Beginning Piano I or Beginning Piano II or Intermediate Piano or Advanced Piano</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Courses - ENSEMBLE</td>
<td>MUS-20</td>
<td>Hartnell College Choir</td>
<td>4.0</td>
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<tr>
<td></td>
<td>MUS-21</td>
<td>Hartnell Chamber Singers</td>
<td>4.0</td>
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<td></td>
<td>MUS-23.1</td>
<td>Hartnell Chorale</td>
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<tr>
<td></td>
<td>MUS-25</td>
<td>Hartnell College Wind Ensemble</td>
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<tr>
<td></td>
<td>MUS-26</td>
<td>Jazz Ensemble</td>
<td>4.0</td>
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<tr>
<td></td>
<td>MUS-29.1</td>
<td>Symphonic Band</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>MUS-34.1</td>
<td>Symphony Orchestra</td>
<td>4.0</td>
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SUBTOTAL UNITS (26.0)

<table>
<thead>
<tr>
<th>✓ RECOMMENDED MAJOR ELECTIVES (Select from list; none required)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended Major Electives</td>
<td>MUS-42</td>
<td>Computer-Based Digital Audio Recording</td>
<td>2.0</td>
</tr>
<tr>
<td>Recommended Major Electives</td>
<td>MUS-43</td>
<td>Computer-Based MIDI Sequencing</td>
<td>2.0</td>
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</table>

<table>
<thead>
<tr>
<th>✓ ELECTIVES (Courses Numbered 1–199)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electives</td>
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SUBTOTAL UNITS (≥13.0)

<table>
<thead>
<tr>
<th>✓ REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td>MUS-1A or MUS-1B</td>
<td>Music Appreciation—Historical or Music Appreciation—Genre Perspective</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Ethnic Groups in the United States (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language and Rationale (9 Units)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</td>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥21.0)

TOTAL UNITS (≥60.0)

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam

These courses are also Required Major Courses

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.

Hartnell College Catalog – 2009/10
NURSING—REGISTERED NURSING—ASSOCIATE OF SCIENCE DEGREE

PROGRAM DESCRIPTION

Hartnell College Registered Nursing Program provides an educational opportunity for qualified individuals interested in a career as a registered nurse. Upon successful completion of program requirements, graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN) and with passing score will become a licensed Registered Nurse.

As a result of ongoing changes in technology, the need to expand competencies and changing transfer requirements, certificate and degree requirements may also change. If you note changes in degree or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or a faculty member on how best to complete the program in which you are enrolled.

Because the Registered Nursing Program is impacted, completion of program prerequisites does not guarantee enrollment into the Hartnell College Registered Nursing Program.

FOR MORE INFORMATION, CONTACT:  
Department of Nursing at 831-770-6146  
Hartnell College Counselor for Nursing 831-755-6820

PROGRAM OUTCOMES

Upon successful completion of the Registered Nursing program, a student should be able to:

- pass the NCLEX-RN exam on the first attempt at a rate of 93%; and 100% by the second attempt.
- provide safe, direct, nursing care to clients in a healthcare setting.
- utilize the nursing process when providing direct client care.

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Some courses have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

### REQUIRED MAJOR COURSES

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO-6</td>
<td>Introductory Physiology</td>
<td>3.0</td>
</tr>
<tr>
<td>BIO-4L</td>
<td>Physiology Laboratory</td>
<td>2.0</td>
</tr>
<tr>
<td>BIO-7 or BIO-27</td>
<td>General Microbiology</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>Principles of Microbiology</td>
<td>4.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 9.0-10.0)

### REQUIRED GENERAL EDUCATION COURSES

Please note: Additional Required Prerequisites for Nursing Program admission are listed below under Required General Education Courses.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO-5</td>
<td>Human Anatomy</td>
<td>4.0</td>
</tr>
<tr>
<td>PSY-1A or PSY-2</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANT-2</td>
<td>Introduction to Anthropology: Cultural</td>
<td>(3.0)</td>
</tr>
</tbody>
</table>

### UNITY EDUCATION REQUIREMENTS

Language and Rationality (9 Units)

A. Written Composition (Required Prerequisite for Nursing Program)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG-1A</td>
<td>College Composition and Reading or with Multicultural Perspective**</td>
<td>3.0</td>
</tr>
</tbody>
</table>

B. Communication and Analytical Thinking (Required Prerequisite for Nursing Program)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAT-123* or SPE-3</td>
<td>Essentials of Public Speaking or Introduction to Communication</td>
<td>(5.0)</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 21.0-24.0)

### REQUIRED MAJOR COURSES AFTER ACCEPTANCE INTO REGISTERED NURSING PROGRAM

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>Basics of Pharmacology for Nursing Practice</td>
<td>1.0</td>
</tr>
<tr>
<td>NRN-41</td>
<td>Nursing Theory I</td>
<td>4.0</td>
</tr>
<tr>
<td>NRN-41,1</td>
<td>Nursing Clinical I</td>
<td>4.0</td>
</tr>
<tr>
<td>NRN-41,2</td>
<td>Critical Thinking for Nurses I</td>
<td>1.0</td>
</tr>
<tr>
<td>NRN-41,3</td>
<td>Nursing Skills Lab I</td>
<td>1.0</td>
</tr>
<tr>
<td>NRN-50</td>
<td>Nursing Laboratory Practicum</td>
<td>0.3</td>
</tr>
<tr>
<td>4.0</td>
<td>Nursing Theory II</td>
<td>4.0</td>
</tr>
<tr>
<td>NRN-42,1</td>
<td>Nursing Clinical II</td>
<td>4.0</td>
</tr>
<tr>
<td>NRN-42,2</td>
<td>Critical Thinking for Nurses II</td>
<td>1.0</td>
</tr>
<tr>
<td>NRN-50</td>
<td>Nursing Laboratory Practicum</td>
<td>0.3</td>
</tr>
<tr>
<td>4.0</td>
<td>Nursing Theory III</td>
<td>4.0</td>
</tr>
<tr>
<td>NRN-43,1</td>
<td>Nursing Clinical III</td>
<td>5.0</td>
</tr>
<tr>
<td>NRN-43,2</td>
<td>Critical Thinking for Nurses III</td>
<td>1.0</td>
</tr>
<tr>
<td>NRN-43,3</td>
<td>Nursing Skills Lab III</td>
<td>1.0</td>
</tr>
<tr>
<td>NRN-50</td>
<td>Nursing Laboratory Practicum</td>
<td>0.3</td>
</tr>
<tr>
<td>4.0</td>
<td>Nursing Theory IV</td>
<td>4.0</td>
</tr>
<tr>
<td>NRN-44,1</td>
<td>Nursing Clinical IV</td>
<td>4.0</td>
</tr>
<tr>
<td>NRN-44,2</td>
<td>Critical Thinking for Nurses IV</td>
<td>1.0</td>
</tr>
<tr>
<td>NRN-40</td>
<td>Preceptorship in Nursing</td>
<td>2.5</td>
</tr>
<tr>
<td>NRN-50</td>
<td>Nursing Laboratory Practicum</td>
<td>0.3</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 43.7)

TOTAL UNITS (≥ 60.0)

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a “C” or better or a score of 70% or greater on the mathematics competency exam

**Completion of ENG-1A Multicultural Perspective may be used to fulfill both the ENG-1A and Ethnic Groups in the United States requirements
CON’T OF REGISTERED NURSING—ASSOCIATE OF SCIENCE DEGREE

TRANSFER STUDENTS

Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.

NURSING PROGRAM

Nursing requires a separate application and screening procedures that must be completed independently from regular admission. Entrance to the program is subject to an annual application process. Please contact the Department of Nursing or a Hartnell College Counselor (for Nursing) for more information. (Department of Nursing office 770-6146; Counseling, 755-6820)

Application to the Associate Degree Nursing Program and informational materials are available from the Department of Nursing office. Applications are available in December of each year for the following Fall semester (August) admission. Application and all official documents of verification must be submitted by the deadline date as stated on application. Additional cost for uniforms, clinical and skills supplies, and standardized tests are required. Students accepted for entry into the Registered Nursing program will be required to attend a mandatory orientation. At the orientation, policies and procedures and information on health/drug screening and background checks will be given.

Hartnell College Nursing Program is impacted (more students apply for admission than can be admitted). Selection is based on criteria established by the Department of Nursing and the California Community College Associate Degree Nursing Prerequisites Model for Admissions. Students considered for admission must complete anatomy, physiology, and microbiology prerequisites with an overall GPA of 2.0 or higher. Science GPA will be reduced for each W, D, F, and/or repeat by <0.33> if taken within the last 7 years. No grade less than “C” will be accepted. All requirements are listed on the application.

Minimum Requirements for Admission Eligibility:
1. Hartnell College application indicating eligibility to attend Hartnell College on file in Admissions and Records Office
2. High School Verification: official high school transcripts or equivalent required by the Board of Registered Nursing, Rules and Regulations, Section 1412
3. Completion of all prerequisite courses with a minimum of a “C” grade as documented on official transcripts. In-progress courses will not be accepted. A higher level of English (i.e. ENG 2 or ENG 1B) is accepted for admission GPA purposes.
4. Current Healthcare Provider CPR Card
5. Pre-entrance readiness score

Success in the Nursing Program is based upon theoretical knowledge, manipulative skill proficiency, and their application in the clinical setting. To progress and graduate from the nursing program, students must achieve at least “C” grades in all nursing courses.

The Hartnell College Nursing program is fully accredited by the California Board of Registered Nursing (BRN).

Baccalaureate Preparation

Students should consult with a nursing counselor and appropriate college catalog for specific transfer requirements. In addition to preparation for entering a university as a transfer student, there are advanced placement opportunities for RN to BSN programs.

LICENSED VOCATIONAL NURSE TO REGISTERED NURSE (2 OPTIONS)

Option 1) ASSOCIATE DEGREE IN NURSING LVN-to-RN

Open to Licensed Vocational Nurses applying for advanced placement into the second year (third semester) of the Registered Nursing program. LVN-to-RN applicants must have

1) a current and active California Vocational Nursing License.

2) completed all required prerequisites and required General Education courses for the Associate Degree in Nursing with a grade of “C” or better. (See above Registered Nursing required courses.) Students could be accepted with General Education courses in progress on the contingency that the General Education courses are completed prior to start of program.

3) completed with a grade of “C” or better or “pass” NRN 20 LVN-RN transition course (this course is offered for students applying to enter the Registered Nursing program)

The LVN to RN advanced placement student will enroll in the following course in the spring semester. It is recommended to take this course the spring prior to the fall semester in which the Nursing program will begin:

<table>
<thead>
<tr>
<th>COURSE #</th>
<th>COURSE TITLE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRN 20</td>
<td>LVN to RN Transition</td>
<td>4.0</td>
</tr>
<tr>
<td>NRN 50</td>
<td>Nursing Lab Practicum</td>
<td>0.3</td>
</tr>
</tbody>
</table>

(Students may need to enroll in this course prior to receiving an acceptance letter)

Upon successful completion of the Associate Degree in Nursing program requirements, graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN).

Option 2) CERTIFICATE 30-UNIT LVN-RN OPTION

Open to licensed vocational nurses who have worked for at least one year. LVN-to-RN 30-Unit Option applicants must have

1) a current and active California Vocational Nursing License.

2) completed all required prerequisites with a grade of “C” or better (listed below).

Required Prerequisite Courses for LVN-RN 30-Unit Option

Hartnell College Catalog – 2009/10
## CON’T OF REGISTERED NURSING—ASSOCIATE OF SCIENCE DEGREE

<table>
<thead>
<tr>
<th>COURSE #</th>
<th>COURSE TITLE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 6</td>
<td>Introductory Physiology</td>
<td>3.0</td>
</tr>
<tr>
<td>BIO 6L</td>
<td>Physiology Laboratory</td>
<td>2.0</td>
</tr>
<tr>
<td>BIO 27</td>
<td>Principles of Microbiology</td>
<td>4.0</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIO 7</td>
<td>General Microbiology</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Completing the above does not guarantee advanced placement admission into the Registered Nursing Program.

### In-Program Courses Required for 30-Unit Option

<table>
<thead>
<tr>
<th>COURSE #</th>
<th>COURSE TITLE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Semester (third semester)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NRN-43</td>
<td>Nursing Theory III</td>
<td>4.0</td>
</tr>
<tr>
<td>NRN-43.1</td>
<td>Nursing Clinical III</td>
<td>4.0</td>
</tr>
<tr>
<td>NRN-43.2</td>
<td>Critical Thinking for Nurses III</td>
<td>1.0</td>
</tr>
<tr>
<td>NRN-43.3</td>
<td>Nursing Skills Lab III</td>
<td>1.0</td>
</tr>
<tr>
<td>NRN-50</td>
<td>Nursing Laboratory Practicum</td>
<td>0.3</td>
</tr>
</tbody>
</table>

| Spring Semester (fourth semester) | | |
| NRN-44   | Nursing Theory IV          | 4.0   |
| NRN-44.1 | Nursing Clinical IV        | 4.0   |
| NRN-44.2 | Critical Thinking for Nurses IV | 1.0 |
| NRN-50   | Nursing Laboratory Practicum | 0.3  |

Upon completion of the LVN-RN 30-Unit option, the student will receive a Certificate of Completion in compliance with Section 1429 law relating to Nursing Education Licensure Practice. The student is eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN).

**Note:** Other states may not recognize the LVN-RN 30-Unit Option as a method to satisfy the requirements for licensure as a Registered Nurse. Interested candidates are urged to contact the respective Boards of Nursing for additional information to make an informed decision.

### NURSING STUDENTS TRANSFERRING FROM OTHER INSTITUTIONS

Students from other nursing programs seeking placement into the second, third, or fourth semesters of the Associate Degree in Nursing program at Hartnell College should contact the Director of Nursing (831) 770-6145. The Hartnell College Nursing Program Director and Nursing Counselors will evaluate all transfer student records for course work equivalency. Syllabi, course outlines, and catalogs may be requested for the evaluation.
NURSING—VOCATIONAL NURSING—CERTIFICATE OF ACHIEVEMENT (Scheduled offering of the program is under review.)

The Hartnell College Vocational Nursing (VN) Program is a three-semester program designed to prepare qualified individuals to practice vocational nursing. Licensed Vocational Nurses perform essential nursing services under the supervision of a registered nurse or physician. They have work opportunities in home health agencies, doctor's offices, public or private hospitals, long-term care hospitals, clinics, or for private individuals. The college grants a certificate in vocational nursing after successful completion of the program. The student is then eligible to take the NCLEX-PN examination for California licensure and, with a passing score, will become a Licensed Vocational Nurse (LVN).

As a result of ongoing changes in technology, the need to expand competencies and changing transfer requirements, certificates and degree requirements may also change. If you note changes in degree or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or a faculty member on how best to complete the program in which you are enrolled.

Because the Vocational Nursing program is impacted, completion of program prerequisites does not guarantee enrollment into the Hartnell College Vocational Nursing Program. Please contact the Department of Nursing or a Hartnell College Counselor (for Nursing) for more information. (Nursing Program, 831-770-6146; Counseling, 831-755-6820).

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College.

<table>
<thead>
<tr>
<th>REQUIRED PREREQUISITE CERTIFICATE COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Prerequisite for Vocational Nursing Program</td>
<td>HES-120</td>
<td>Foundations of Health Care or/and current equivalent certification</td>
<td>1.0</td>
</tr>
<tr>
<td>Required Prerequisite for Vocational Nursing Program</td>
<td>HES-130A</td>
<td>Certified Nursing Assistant or/and current equivalent certification</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Prerequisite for Vocational Nursing Program</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Prerequisite for Vocational Nursing Program</td>
<td>MAT-121</td>
<td>Elementary Algebra or higher level math course</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Prerequisite for Vocational Nursing Program</td>
<td>FCS-22* or FCS-23*</td>
<td>Essentials of Nutrition or Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Prerequisite for Vocational Nursing Program</td>
<td>BIO-11* or BIO-6* and BIO-6* and BIO-6L*</td>
<td>Introductory Human Anatomy &amp; Physiology or Human Anatomy and Introductory Physiology and Physiology Lab</td>
<td>4.0 or 4.0 and 3.0 and 2.0</td>
</tr>
<tr>
<td>Required Prerequisite for Vocational Nursing Program</td>
<td>PSY-1A* or PSY-2</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (≥ 24.0)**

**REQUIRED CERTIFICATE COURSES (CAN BE TAKEN PRIOR TO ACCEPTANCE TO PROGRAM OR CONCURRENT WITH THE FIRST COURSE IN THE PROGRAM)**

| Required Certificate Course | NVN-131* | Growth and Development Across the Lifespan | 2.0 |
| Required Certificate Course | NVN-139* | Basic Pharmacology | 3.0 |

**SUBTOTAL UNITS (≥ 5.0)**

**REQUIRED CERTIFICATE COURSES AFTER ACCEPTANCE INTO VOCATIONAL NURSING PROGRAM**

To be completed first

| Required Certificate Course | NVN-120 | Vocational Nursing I: Fundamentals | 10.0 |
| Required Certificate Course | NVN-150 | Vocational Nursing Laboratory Practicum | 0.3 |

To be completed second

| Required Certificate Course | NVN-121 | Vocational Nursing II: Care of the Childbearing Family | 12.0 |
| Required Certificate Course | NVN-150 | Vocational Nursing Laboratory Practicum | 0.3 |

To be completed third

| Required Certificate Course | NVN-122 | Vocational Nursing III: Care of the Adult, Geriatric and Mental Health Patient | 12.0 |
| Required Certificate Course | NVN-150 | Vocational Nursing Laboratory Practicum | 0.3 |

**TOTAL UNITS (≥ 34.9)**

*Courses marked with an asterisk must be completed within five years of entering the vocational nursing program in order to receive credit for the hours required by the Board of Vocational Nursing and Psychiatric Technicians of the State of California (California Code of Regulations, Title 16: Professional Regulations, Division 25: Board of Vocational Nursing and Psychiatric Technicians of the State of California).

VOCATIONAL NURSING PROGRAM

The Hartnell College Vocational Nursing Program requires a separate application procedure in addition to the general college admission application. Entrance to the program is subject to an annual application process. Please contact the Department of Nursing office or a Hartnell College Counselor (for Nursing) for more information. Department of Nursing office 770-6146; Counseling, 755-6820.

Application to the Vocational Nursing Program and informational materials are available from the Department of Nursing Office. Applications are available in September of each year for the following Spring semester (January) admission. Application materials and all official documents of verification must be submitted before the deadline date stated on the application.

Additional cost for uniforms, clinical and skills supplies, and standardized tests are required. Students accepted for entry into the Vocational Nursing program will be required to attend a mandatory orientation. At the orientation policies and procedures and information on health/drug screening and background checks will be given.
CON’T OF VOCATIONAL NURSING—CERTIFICATE OF ACHIEVEMENT (Scheduled offering of the program is under review.)

Minimum Requirements for Admission Eligibility:

1. Hartnell College application indicating eligibility to attend Hartnell College on file in Admissions and Records Office

2. High school verification: official high school transcripts or equivalent [Vocational Nursing and Psychiatric Technicians of the State of California (BVNPT) Rules and Regulations]

3. Completion of all prerequisite courses with a minimum of a "C" grade as documented on official transcripts (In progress courses will not be accepted). A higher level of English (i.e. ENG 2 or ENG 1B) is accepted for admission GPA purposes.


Success in the Vocational Nursing Program is based upon theoretical knowledge, psycho-motor skill proficiency, and their application in the clinical setting. To progress and graduate from the Vocational Nursing Program, students must achieve at least “C” grades in all nursing courses.

The Hartnell College Vocational Nursing Program is fully accredited by the Board of Vocational Nursing and Psychiatric Technicians of the State of California (BVNPT).

LVN-RN Preparation (see registered nursing catalog pages)

Students should consult with a nursing counselor and appropriate college catalog for specific requirements.
PHOTOGRAPHY—ASSOCIATE OF ARTS DEGREE

PROGRAM DESCRIPTION

Photography is an omnipresent, integral part of life in the 21st Century. It is the basis of visual media such as film making, video and digital imaging. The study of photography involves both the development of a technical, skill based knowledge, as well as an appreciation for how the medium has changed and continues to shape the values, the cultures and the lives of everyone globally. Photography is more than a means to make a visual record; it has also become a tool of change, a form of art; a means of learning, and platform for communicating ideas.

The photography faculty are committed to empowering students with the ability to apply photo imaging to their lives for practical, professional and artistic purpose. Hartnell photo instruction prepares students for advancement to college and university study, to achieve personal enrichment and development, to acquire abilities needed to produce photographic art of high aesthetic value, and to develop or hone professional skills. Photography offers careers in the following areas: advertising; photographic art; fashion photography; commercial portrait; digital effects; photo journalism; editorial, wedding and special event photography; industrial photography; travel, adventure, and pet photography; scientific photography; forensic photography; and documentary photography.

As a result of ongoing changes in technology, the need to expand competencies, and changing transfer requirements, certificate and degree requirements may also change. If you note changes in degrees or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty on how best to complete the program in which you are enrolled. For detailed requirements for individual four-year institutions, students should contact the transfer institution and/or meet with a counselor for specific transfer course requirements in their major.

FOR MORE INFORMATION, CONTACT: Eric Bosler at 831-755-6792, ebosler@hartnell.edu, VAF 208B

PROGRAM OUTCOMES

Upon successful completion of the Photography program, a student should be able to:

- demonstrate effective technical proficiency with film and digital media.
- structure visual information to produce images of intermediate level aesthetic quality.
- interpret and produce photographs that communicate intellectually and emotionally.
- demonstrate an intermediate knowledge of the history of photography.
- demonstrate an awareness of the influence of photography on the lives of individuals, cultures, and societies.

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>PHO-1</td>
<td>Introduction to Photography</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PHO-2</td>
<td>Beginning Black and White Photography</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PHO-3</td>
<td>Advanced Photography lab Course</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PHO-4</td>
<td>Portfolio Photography</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART-80</td>
<td>Digital Photographic Imaging</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART-70</td>
<td>Graphic Design/Computer Graphics</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART-102A</td>
<td>Design</td>
<td>3.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>✓ RESTRICTED MAJOR ELECTIVES (Select a minimum of 3.0 units from the following)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>ART-1A</td>
<td>History of Art I</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-1B</td>
<td>History of Art II</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-3</td>
<td>Drawing and Composition</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-6A</td>
<td>Watercolor and Gouache</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-6B</td>
<td>Oils</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-6C</td>
<td>Acrylics</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-70</td>
<td>Art Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-71</td>
<td>Introduction to 2D Digital Illustration</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-72</td>
<td>Introduction to Digital Arts</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-77</td>
<td>Digital Video, Audio Editing, &amp; Production</td>
<td>3.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>✓ ELECTIVES (Courses Numbered 1–199)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>✓ REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic Groups in the United States</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Written Composition</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>Communication and Analytical Thinking</td>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam

†These courses are also Required Major Courses

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.

Hartnell College Catalog – 2009/10
PHOTOGRAPHY—CERTIFICATE OF ACHIEVEMENT

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of “C” or better must be maintained in all certificate-applicable units.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHO-1</td>
<td>Introduction to Photography</td>
<td>3.0</td>
</tr>
<tr>
<td>PHO-2</td>
<td>Beginning Black and White photography</td>
<td>3.0</td>
</tr>
<tr>
<td>PHO-3</td>
<td>Advanced Photography Lab</td>
<td>3.0</td>
</tr>
<tr>
<td>PHO-4</td>
<td>Portfolio Photography</td>
<td>3.0</td>
</tr>
<tr>
<td>ART/CSS-70</td>
<td>Graphic Design/Computer Graphics</td>
<td>3.0</td>
</tr>
<tr>
<td>ART/CSS/PHO-80</td>
<td>Digital Photographic Imaging</td>
<td>3.0</td>
</tr>
<tr>
<td>ART-12A</td>
<td>Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-101* or ESL-101*</td>
<td>Intermediate Composition and Reading or English for Academic Purposes II</td>
<td>(3.0) or (5.0)</td>
</tr>
<tr>
<td>MAT-201*</td>
<td>Prealgebra</td>
<td>(3.0)</td>
</tr>
</tbody>
</table>

**REQUERED MAJOR COURSES**

Subtotal Units (≥ 18.0)

**RESTRICTED MAJOR ELECTIVES (Select a minimum of 3 units from the following)**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART-77 or CSS-77</td>
<td>Digital Video, Audio Editing and Production</td>
<td>3.0</td>
</tr>
<tr>
<td>ART-75 or CSS-75</td>
<td>3D Modeling and Digital Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>ART-1A</td>
<td>History of Art I</td>
<td>3.0</td>
</tr>
<tr>
<td>ART-1B</td>
<td>History of Art II</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Subtotal Units (≥ 21.0)

Total Units

*Eligibility for ENG-1A fulfills this requirement.

**Eligibility for MAT-121 or completion of any math in which MAT-201 is a prerequisite with a grade of “C” or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.
PHYSICAL EDUCATION—ASSOCIATE OF SCIENCE DEGREE

PROGRAM DESCRIPTION
The Physical Education, Health and Athletics program provides formalized educational opportunities for the development and acquisition of motor skills, improved physical fitness and their application to sports and physical activities. The Health Education Program provides the student with the knowledge and skills to develop a healthy lifestyle. The Adaptive Physical Education Program parallels the concepts and programs of the Physical Education discipline including a broad range of movement skills specifically designed for the special needs individual, with the objective of making a noticeable difference in their daily lives. These programs help prepare students to transfer as kinesiology majors to four-year institutions.

Four-year graduates in Kinesiology are qualified for positions in coaching, education, industry wellness centers and allied medical fields.

For detailed requirements for individual four-year institutions, students should contact the transfer institution and/or meet with a counselor for transfer course requirements in their major.

FOR MORE INFORMATION, CONTACT: Dyan Miller, Dean of Physical Education Health & Athletics at 831-755-6830, dmiller@hartnell.edu, PE 134
Rich Givens, Student Athlete Counselor at 831-755-6848, rgivens@hartnell.edu, PE 114B

FOR MORE INFORMATION ON ADAPTIVE PHYSICAL EDUCATION CONTACT: Melissa Stave at 831-755-6876, mstave@hartnell.edu, PE 144
Yvonne Reid at 831-770-6187, yreid@hartnell.edu, PE 144

PROGRAM OUTCOMES
Upon successful completion of the Physical Education, Health and Athletics program, a student should be able to:

- demonstrate competence in performing a variety of skill-related behaviors.
- describe health and physical activity concepts that will enable him or her to make informed decisions concerning health.
- recognize health issues, understanding the similarities and contrasts among cultures.
- demonstrate sensitivity to cultural and physical diversity.
- explain the value and significance of physical activity for human development, human interaction and quality of life and its relationship to their particular disability.

A minimum of 60.0 semester units with a grade of "C" or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>BIO-T1</td>
<td>Introductory Human Anatomy and Physiology</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PE-15</td>
<td>Care and Prevention of Athletic Injuries</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PE-16</td>
<td>Concepts of Fitness and Wellness</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PE-20</td>
<td>Introduction to Physical Education</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>HED-2</td>
<td>Individual Health</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>HED-55</td>
<td>Advanced First Aid</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>COS-23</td>
<td>Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PSY-1A</td>
<td>General Psychology</td>
<td>3.0</td>
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</table>

SUBTOTAL UNITS (18.0)

<table>
<thead>
<tr>
<th>✓ RESTRICTED MAJOR ELECTIVES (Select a minimum of 6.0 units from at least two of the following Activities )</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>PE-1.170, 1.171, 1.172, 1.229</td>
<td>Racquet Activities (Tennis or Badminton)</td>
<td></td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>PE-1.134, 1.160, 1.161, 1.162, 1.221, 1.229</td>
<td>Aquatic Activities (Beginning, Intermediate, Advanced, Swimming, Swim Fitness, Hydro Fitness or Water Jogging)</td>
<td></td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>PE-1.110, 1.111, 1.112, 1.150, 1.151, 1.180, 1.183, 1.184, 1.185, 1.186, 1.189, 1.234, 3.510, 3.511, 3.512, 3.513, 3.514, 3.515, 3.516, 3.530, 3.531</td>
<td>Team Activities</td>
<td></td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>PE-1.131, 1.137, 1.147, 1.182, 1.193, 1.197, 1.198, 1.200, 1.204, 1.206, 1.222, 1.228, 1.232, 1.235, 1.236, 1.237, 1.238, 1.240, 1.241, 1.242, 1.243</td>
<td>Fitness Activities</td>
<td></td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (6.0)

<table>
<thead>
<tr>
<th>✓ RESTRICTED MAJOR ELECTIVES (Select a minimum of 1.0 unit from Theory and Analysis of Sports)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
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</table>

SUBTOTAL UNITS (1.0)

<table>
<thead>
<tr>
<th>✓ RECOMMENDED MAJOR ELECTIVES (Select from list; none required)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>Recommended Major Elective</td>
<td>HED-6</td>
<td>Multicultural Health Beliefs</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>HED-40</td>
<td>Alcohol/Drug Awareness</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>CSS/LB-90</td>
<td>Internet Literacy</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>CHM-22</td>
<td>The Science of Chemistry</td>
<td>4.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>BIO-5</td>
<td>Human Anatomy</td>
<td>4.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>BIO-6</td>
<td>Introductory Physiology</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>BIO-4L</td>
<td>Physiology Laboratory</td>
<td>2.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>EDU-1</td>
<td>Multicultural Perspectives in Education</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>COU-26</td>
<td>Learning Strategies</td>
<td>3.0</td>
</tr>
</tbody>
</table>
### CON’T OF PHYSICAL EDUCATION—ASSOCIATE OF SCIENCE DEGREE

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
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<td></td>
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</table>

**SUBTOTAL UNITS (≥ 14.0)**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>BIO-11</td>
<td>Introductory Human Anatomy and Physiology</td>
<td>4.0</td>
</tr>
<tr>
<td>HED-2</td>
<td>Individual Health</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**REQUIRED GENERAL EDUCATION COURSES**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences</td>
<td>(Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td>(Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
</tr>
<tr>
<td>Ethnic Groups in the United States</td>
<td>(Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
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</tbody>
</table>

A. Written Composition

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
</tbody>
</table>

B. Communication and Analytical Thinking

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT-123</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
<tr>
<td>LIB-5</td>
<td>Information Competency</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (≥ 21.0)**

**TOTAL UNITS (≥ 60.0)**

---

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam

† These courses are also Required Major Courses

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PHYSICS—ASSOCIATE OF SCIENCE DEGREE

PROGRAM DESCRIPTION

The Physics program offers course work for a diverse range of students from the community starting with those merely wishing to learn more of the world around them and finishing with the student pursuing a four-year degree in science or engineering.

Physics courses are available at three different levels, all of which satisfy the needs of students wishing to transfer to four-year colleges and universities. The level of the physics course that students initially enroll in is largely dependent on their individual math skills. The emphasis at all levels is on developing an understanding and appreciation for the basic laws of our physical universe. This is done largely through the development of problem solving skills and laboratory investigations. The Physics program at Hartnell College is fortunate to possess an excellent inventory of laboratory apparatus for demonstrations and student use in the laboratories, and special projects.

Some positions for which four-year graduates in physics are qualified are in research, teaching, engineering, medicine, and industry.

For detailed requirements for individual four-year institutions, students should contact the transfer institution and/or meet with a counselor for specific transfer course requirements in their major.

FOR MORE INFORMATION, CONTACT: Dr. Brooke Haag at 831-770-7017, bhaag@hartnell.edu, MER 10

PROGRAM OUTCOMES

Upon successful completion of the Physics program, a student should be able to:

- comprehend and articulate basic physics terminology.
- demonstrate proficiency in problem solving, especially with regard to basic physics problems involving major concepts, theories, and principles including, but not limited to:
  - conservation of momentum and energy.
  - Newtonian mechanics.
  - Maxwell’s laws.
  - fluid dynamics.
- collect and analyze data effectively using basic laboratory equipment and present results in formally structured laboratory reports.

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY-4A</td>
<td>General Physics/Mechanics</td>
<td>4.0</td>
</tr>
<tr>
<td>PHY-4B</td>
<td>General Physics/Electricity and Magnetism</td>
<td>4.0</td>
</tr>
<tr>
<td>PHY-4C</td>
<td>General Physics/Waves, Heat, Light and Modern Physics</td>
<td>4.0</td>
</tr>
<tr>
<td>MAT-3A</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>MAT-3B</td>
<td>Analytic Geometry and Calculus II</td>
<td>4.0</td>
</tr>
<tr>
<td>MAT-3C</td>
<td>Analytic Geometry and Calculus III</td>
<td>4.0</td>
</tr>
<tr>
<td>MAT-3D</td>
<td>Analytic Geometry and Calculus IV</td>
<td>4.0</td>
</tr>
<tr>
<td>CHM-1A</td>
<td>General Chemistry I</td>
<td>5.0</td>
</tr>
<tr>
<td>CHM-1B</td>
<td>General Chemistry II</td>
<td>5.0</td>
</tr>
<tr>
<td>CSS-4</td>
<td>Introduction to Scientific Programming</td>
<td>4.0</td>
</tr>
<tr>
<td>AST-1</td>
<td>Introduction to Astronomy</td>
<td>3.0</td>
</tr>
<tr>
<td>AST-1L</td>
<td>Astronomy Laboratory</td>
<td>1.0</td>
</tr>
<tr>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT-3A</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>MAT-3B</td>
<td>Analytic Geometry and Calculus II</td>
<td>4.0</td>
</tr>
</tbody>
</table>

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam
+These courses are also Required Major Courses

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
PSYCHOLOGY—ASSOCIATE OF ARTS DEGREE

PROGRAM DESCRIPTION

Psychology is the scientific discipline concerned with the study of the mind. It is a natural and a social science concerned with the study of human behavior. As such, it is a broad discipline which involves both pure science and practical application of science to matters of everyday living.

The Psychology AA degree program provides students with a basic understanding of motivation and behavior that is valuable to many careers in business, government, education, and health care. Becoming a “psychologist,” however, requires graduate level training. Psychologists with graduate degrees and professional certificates have a broad range of employment opportunities including clinical practice, research, and teaching. Hartnell College offers lower division transfer courses to meet the requirements for most baccalaureate majors offered by accredited colleges and universities. Psychology and counseling faculty are excellent resources for additional career information.

FOR MORE INFORMATION, CONTACT: Yoshiko Matsushita-Arao, PhD, at 831-755-6781, yarao@hartnell.edu, CAB 316
Carol Kimbrough, MA, MPT, at 831-755-6856, skimbrough@hartnell.edu, CAB 308

PROGRAM OUTCOMES

Upon successful completion of the Psychology program, a student should be able to:

- demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.
- apply knowledge of basic research methods in psychology, including research design, data analysis, and interpretation.
- use critical and creative thinking, skeptical inquiry, and the scientific approach to solving problems related to behavioral and mental processes.
- apply psychological principles to personal, social, and organizational issues.
- consider evidence, tolerate ambiguity, act ethically, and reflect other values that represent contemporary foundations of psychology as a discipline.

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>PSY-2</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PSY-4</td>
<td>Research Methods in Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PSY-10</td>
<td>Introduction to Biological Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PSY-14</td>
<td>Child Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PSY-15</td>
<td>Human Sexuality</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PST-22</td>
<td>Abnormal Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BIO-11</td>
<td>Intro. to Human Anatomy &amp; Physiology</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT-13‡</td>
<td>Elementary Statistics</td>
<td>5.0</td>
</tr>
</tbody>
</table>

| SUBTOTAL UNITS (27.0) |

<table>
<thead>
<tr>
<th>RESTRICTED MAJOR ELECTIVES (None required)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Electives:</td>
<td></td>
<td></td>
<td></td>
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<tr>
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</tr>
</tbody>
</table>

| SUBTOTAL UNITS (0) |

<table>
<thead>
<tr>
<th>RECOMMENDED MAJOR ELECTIVES (Select from list; none required)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended Major Elective</td>
<td>PSY-30</td>
<td>Forensic Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>PSY-33</td>
<td>Personal &amp; Social Adjustment</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>PSY-36</td>
<td>Psychology of “La Mujer”</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>PSY-41</td>
<td>Psychology of Human Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>PSY-42</td>
<td>Psychology of Women</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>PSY-45</td>
<td>Special Projects</td>
<td>1-3</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>PSY-99</td>
<td>Occupational Work Experience (Education)</td>
<td>1-4</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>ANT-1</td>
<td>Physical Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>ANT-2</td>
<td>Intro. to Anthropology: Cultural</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>SOC-1</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>SOC-5</td>
<td>Introduction to Social Problems</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>SOC-41</td>
<td>Marriage and the Family</td>
<td>3.0</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>ELECTIVES (Courses Numbered 1–199)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
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| SUBTOTAL UNITS (≥ 20.0) |

<table>
<thead>
<tr>
<th>REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences</td>
<td>BIO-11‡</td>
<td>Introduction to Human Anatomy &amp; Physiology</td>
<td>(4.0)</td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humansaites</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic Groups in the United States</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENG-1A</td>
<td>College Reading and Composition</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</td>
<td>MAT-13‡</td>
<td>Elementary Statistics</td>
<td>(5.0)</td>
</tr>
</tbody>
</table>

| SUBTOTAL UNITS (≥ 22.0) |

| DEGREE TOTAL UNITS (≥ 60.0) |

*These courses satisfy both Major and General Education requirements

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
REAL ESTATE—ASSOCIATE OF ARTS DEGREE

**PROGRAM DESCRIPTION**

The Real Estate program prepares students to work in the field of residential real estate. Students receive training in real estate principles, practices, economics, appraisal, finance, escrow, and property management. The program prepares students to take the subject matter examinations required by the State of California for licensure as a Real Estate Salesperson and as a Real Estate Broker.

The State of California may have additional requirements for on-the-job experience or training and may change its requirements for licensure. If students have questions about licensing requirements, it is recommended that they contact Real Estate faculty or the California Department of Real Estate. As a result of ongoing changes in technology, the need to expand competencies, and changing transfer requirements, certificate and degree requirements may also change. If you note changes in degrees or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty on how best to complete the program in which you are enrolled.

**FOR MORE INFORMATION, CONTACT:** Career and Economic Development at 755-6960, TECH 11

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>RE-144</td>
<td>Principles of Real Estate</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>RE-145</td>
<td>Real Estate Practices</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>RE-146</td>
<td>Legal Aspects of Real Estate</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>RE-147</td>
<td>Real Estate Finance</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>RE-148</td>
<td>Real Estate Appraisal I</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>RE-149</td>
<td>Real Estate Economics</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (18.0)**

<table>
<thead>
<tr>
<th>✓ RESTRICTED MAJOR ELECTIVES (Select a minimum of 6.0 units from the following)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>BUS-1A</td>
<td>Accounting Principles</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>BUS-18</td>
<td>Legal Environment of Business</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>BUS-32</td>
<td>Introduction to Business</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>RE-150</td>
<td>Property Management</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>RE-153</td>
<td>Escrow Procedures</td>
<td>3.0</td>
</tr>
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</table>

**SUBTOTAL UNITS (≥ 6.0)**

<table>
<thead>
<tr>
<th>✓ ELECTIVES (Courses Numbered 1–199)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
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<tr>
<td>Elective</td>
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<td></td>
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<tr>
<td>Elective</td>
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</table>

**SUBTOTAL UNITS (≥ 15.0)**

<table>
<thead>
<tr>
<th>✓ REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>Humanities (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>Ethnic Groups in the United States (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENG-1A</td>
<td>College Reading and Composition</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</td>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (≥ 21.0)**

**TOTAL UNITS (≥ 60.0)** 60.0

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam

‡ These courses are also Required Major Courses

**TRANSFER STUDENTS:** Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
REAL ESTATE—CERTIFICATE OF ACHIEVEMENT

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of “C” or better must be maintained in all certificate-applicable units.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RE-144</td>
<td>Principles of Real Estate</td>
<td>3.0</td>
</tr>
<tr>
<td>RE-145</td>
<td>Real Estate Practices</td>
<td>3.0</td>
</tr>
<tr>
<td>RE-146</td>
<td>Legal Aspects of Real Estate</td>
<td>3.0</td>
</tr>
<tr>
<td>RE-147</td>
<td>Real Estate Finance</td>
<td>3.0</td>
</tr>
<tr>
<td>RE-148</td>
<td>Real Estate Appraisal</td>
<td>3.0</td>
</tr>
<tr>
<td>RE-149</td>
<td>Real Estate Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>ENG-101*</td>
<td>Intermediate Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>ESL-101**</td>
<td>Composition and Grammar for ESL</td>
<td>5.0</td>
</tr>
<tr>
<td>MAT-201**</td>
<td>Prealgebra</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (18.0)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS-1A</td>
<td>Accounting Principles</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS-18</td>
<td>Legal Environment of Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS-32</td>
<td>Introduction to Business</td>
<td>3.0</td>
</tr>
<tr>
<td>RE-150</td>
<td>Property Management</td>
<td>3.0</td>
</tr>
<tr>
<td>RE-153</td>
<td>Escrow Procedures</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (6.0)

TOTAL UNITS (24.0)

*Eligibility for ENG-1A fulfills this requirement.

**Eligibility for MAT-121 or completion of any math in which MAT-201 is a prerequisite with a grade of “C” or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.
SOCIAL SCIENCES—ASSOCIATE OF ARTS DEGREE

PROGRAM DESCRIPTION
The program in Social Sciences represents an interdisciplinary group of studies encompassing the disciplines of anthropology, geography, sociology and history. It is designed as a general preparation for a career in social programs that include education, human resources, law, and forensics.

The program is based on the belief that it is important for an individual who plans to work with or for people cross-culturally (anthropologically), over a prescribed region or regions (geographically), within a social context (sociologically), and across time (historically).

FOR MORE INFORMATION, CONTACT: Jorge Sanchez at 831-755-6780, jsanchez@hartnell.edu, CAB 314

PROGRAM OUTCOMES
Upon successful completion of the Social Sciences program, a student should be able to:

- evaluate the nature of complex social phenomenon as it relates to contemporary U.S. politics, international relations, and diverse cultures, both past and present.
- self-reflect by assessing the complexity of human behavior at individual and group levels and comprehend how individuals can affect policy and in turn how policy affects individuals.
- appraise the processes of evolution and social dynamics by which individuals and social structures have evolved.

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>ANT-2</td>
<td>Introduction to Anthropology: Cultural</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>GEG-1</td>
<td>Introduction to Geography: Physical Elements</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>GEG-2</td>
<td>Introduction to Geography: Cultural Elements</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>HIS-17A</td>
<td>History of the United States A</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>POL-1</td>
<td>American Political Institutions</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>SOC-1</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
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SUBTOTAL UNITS (15.0)

<table>
<thead>
<tr>
<th>✓ RESTRICTED MAJOR ELECTIVES (Select a minimum of 18.0 units from the following)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>ADJ-2</td>
<td>Community Relations: Multicultural Diversity</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ANT-1</td>
<td>Physical Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ANT-3</td>
<td>Introduction to Archaeology</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ANT-10</td>
<td>California Indians</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ANT-15</td>
<td>North American Indians</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ANT-20</td>
<td>Cultures of Mexico</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>BUS-32</td>
<td>Introduction to Business</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>HIST-10</td>
<td>History of California</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>HIST-17B</td>
<td>History of the United States B</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>POL-2</td>
<td>Contemporary Governments Abroad</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>POL-3</td>
<td>International Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>POL-5</td>
<td>Chicano Politics and the American Political System</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥18.0)

<table>
<thead>
<tr>
<th>✓ ELECTIVES (Courses Numbered 1–199)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
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<td></td>
<td></td>
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<tr>
<td>Elective</td>
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SUBTOTAL UNITS (≥6.0)

<table>
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<tr>
<th>✓ REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnic Groups in the United States</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A. Written Composition | ENG-1A | College Composition and Reading | 3.0 |
B. Communication and Analytical Thinking | MAT-123* | Intermediate Algebra | 3.0 |

SUBTOTAL UNITS (≥21.0)
TOTAL UNITS (≥60.0)

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam
† These courses are also Required Major Courses

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
SPANISH—ASSOCIATE OF ARTS DEGREE (Pending Chancellor’s Office Approval)

PROGRAM DESCRIPTION

The Spanish degree program includes four semesters of the study of Spanish, one of the world’s most influential languages and the fastest growing language in California. It provides students with the communication skills in understanding, speaking, reading, and writing, and prepares them to enter the workforce in many industries where knowledge of Spanish is valuable and imperative. In addition, it highlights the linguistic, literary, artistic, cultural, and historical contributions of the Spanish speaking world. Courses in this degree program meet the language requirements at many four-year universities, as well as general education and transfer requirements.

FOR MORE INFORMATION, CONTACT: Aurora Mendez at 831-755-6934, amendez@hartnell.edu, CAB373
Aurelia Vacaflor at 831-755-6786, avacaflor@hartnell.edu, CAB325

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>SPA-1 or SPA-1S or SPA-1X</td>
<td>Elementary Spanish or Elementary Spanish Speakers or Elementary Spanish for Chicano Students</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>SPA-2 or SPA-2S or SPA-2X</td>
<td>Elementary Spanish or Elementary Spanish Speakers or Elementary Spanish for Chicano Students</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>SPA-3 or SPA-3S</td>
<td>Intermediate Spanish or Intermediate Spanish Speakers</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>SPA-4 or SPA-4S</td>
<td>Intermediate Spanish or Intermediate Spanish Speakers</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Elective</td>
<td>SPA-35</td>
<td>Literatura chicana</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (23.0)

<table>
<thead>
<tr>
<th>✓ RESTRICTED MAJOR ELECTIVES (Select a minimum of 6.0 units from the following)</th>
<th>Course No.</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>ANT-10</td>
<td>California Indians</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ANT-120</td>
<td>Cultures of Mexico</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ETH-1</td>
<td>Intro to Ethnic Studies</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ETH-2</td>
<td>Chicano Leadership</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ETH-3</td>
<td>Chicanos in American Society</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ETH-4</td>
<td>Chicano Culture</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ETH-5</td>
<td>Chicano Politics and the American Political System</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ETH-6</td>
<td>La Chicana</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ETH-12</td>
<td>Chicano Cinema</td>
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<td>ECE-53</td>
<td>Teaching in a Diverse Society</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>HIS-10</td>
<td>History of California</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>HIS-49A</td>
<td>Chicano History A</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>HIS-49B</td>
<td>Chicano History B</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>MUS-5</td>
<td>Ethnic Music</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>PSY-36</td>
<td>Psychology of “La Mujer”</td>
</tr>
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<td>Restricted Major Elective</td>
<td>SOC-42</td>
<td>Sociology of Minority Relations</td>
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SUBTOTAL UNITS (≥ 6.0)

<table>
<thead>
<tr>
<th>✓ ELECTIVES (Courses Numbered 1–199)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
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<tr>
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SUBTOTAL UNITS (≥ 10.0)

<table>
<thead>
<tr>
<th>✓ REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
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<tbody>
<tr>
<td>Natural Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Ethnic Groups in the United States (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
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</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
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<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENG-1A</td>
<td>College Reading and Composition</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</td>
<td>MAT-123</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 21.0)

TOTAL UNITS (≥ 60.0)

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a “C” or better or a score of 70% or greater on the mathematics competency exam

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
THEATER ARTS—ASSOCIATE OF ARTS DEGREE

PROGRAM DESCRIPTIONS

Theatre Arts or Drama is the study of human expression culminating in a live performance on stage. Theater Arts includes the study of literature, as well as the disciplines and technologies required for performance. Above all, theatre is the in-depth study of the human condition whose purpose is to promote sensitivity and deeper understanding of oneself and others. Theater Arts at Hartnell College celebrates drama and encourages participation by students of all ages and experience. Courses include traditional classroom experiences as well as dynamic and hands-on production environments. Students will develop their imagination and creative abilities.

The Hartnell College Theater Arts program is unique in that a professional theatre company is in residence at Hartnell College: The Western Stage. The collaboration between Hartnell College and The Western Stage provides students the opportunity to learn their craft within a professional context. Courses are designed to the community, for the general education student and for those who may pursue theatre as a major or as a career. Career Options include actor, teacher or professor, director, agent, announcer, casting director, critic, or model. Careers with a Technical Emphasis include Theater technician, concert venue, technician, theme park technician, stage manager, designer, art director, facilities manager, or technical director.

FOR MORE INFORMATION, CONTACT: Office of Academic Affairs and Accreditation at 831-770-7090, CAB 209

PROGRAM OUTCOMES

Upon successful completion of the Theater Arts program, a student should be able to:

- be proficient in theatre and performance, its basic theories, history and techniques, culminating in a live performance on stage.
- demonstrate competency in theatrical design and technologies required for a live theatrical performance applying correct terminology.
- comprehend human condition whose purpose is to promote sensitivity and deeper understanding of oneself.
- conduct and apply analysis and research skills of dramatic texts and instructional materials.
- work effectively as an ensemble member in a fully produced production formulating alternative solutions to theatrical production situations.
- apply audition and job interview skills.
- analyze, interpret, and evaluate their own and others' work in the theatre as a patron and participant.

A minimum of 60.0 semester units with a grade of "C" or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>THA-1</td>
<td>Introduction to Theatre</td>
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<td>Required Major Course</td>
<td>THA-3</td>
<td>History of Theatre</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>THA-10</td>
<td>Beginning Acting</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>SPE-1A</td>
<td>Essentials of Public Speaking</td>
<td>3.0</td>
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SUBTOTAL UNITS (12.0)

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<thead>
<tr>
<th>✓ RESTRICTED MAJOR ELECTIVES (Select a minimum of 9.0 units from the following)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>THA-2A</td>
<td>Art of Interpretative Speech</td>
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<td>Restricted Major Elective</td>
<td>THA-11</td>
<td>Intermediate Acting</td>
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<tr>
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<td>THA-14</td>
<td>Characterization</td>
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<td>THA-17</td>
<td>Singing for Actors</td>
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<td>THA-18</td>
<td>Voice and Diction</td>
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<td>THA-45</td>
<td>Special Projects</td>
<td>1.0-3.0</td>
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<td>Restricted Major Elective</td>
<td>DAN-1</td>
<td>Beginning Ballet</td>
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<td>Restricted Major Elective</td>
<td>DAN-30</td>
<td>Jazz Dance I</td>
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<td>Restricted Major Elective</td>
<td>ENG-17</td>
<td>The Contemporary Shakespeare</td>
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SUBTOTAL UNITS (≥ 9.0)

<table>
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<tr>
<th>✓ ELECTIVES (Courses Numbered 1-199)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
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<tr>
<td>Elective</td>
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SUBTOTAL UNITS (≥ 18.0)

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<tr>
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<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>Natural Sciences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences</td>
<td></td>
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<tr>
<td>Humanities</td>
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</tr>
<tr>
<td>Ethnic Groups in the United States</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</td>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 21.0)

TOTAL UNITS (≥ 60.0)

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a 'C' or better or a score of 70% or greater on the mathematics competency exam

† These courses are also Required Major Courses

TRANSFER STUDENTS: Completing the AS degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow the requirements of the four-year university. Information on course equivalencies and major preparation requirements for the University of California (UC) and California State University (CSU) systems are available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
# WELDING TECHNOLOGY—ASSOCIATE OF SCIENCE DEGREE

## PROGRAM DESCRIPTION

The Welding Technology program provides students with entry- and advanced-level employment skills in welding and metalworking techniques that are relevant to the needs of local employers and industries.

The program provides training in a variety of welding methods including SMAW, GTAW, GMAW and FCAW. Advanced level courses in plate and pipe welding prepare students for AWS welding certification testing. The program offers courses in Sheet Metal Fabrication and Welding Fabrication that focus on print reading and metalworking skills. In addition courses are offered in Architectural/Ornamental Ironwork fabrication and Toolmaking and Handfacing techniques that are used in the construction and agriculture industries.

As a result of ongoing changes in technology, the need to expand competencies, and changing transfer requirements, certificate and degree requirements may also change. If you note changes in degrees or certificate requirements, or if courses are not offered in a particular semester, please consult with a counselor or faculty on how best to complete the program in which you are enrolled.

FOR MORE INFORMATION, CONTACT:  
Ali Amercupan at 831-755-6964, aamercupan@hartnell.edu, TECH 8

## PROGRAM OUTCOMES

Upon successful completion of the Welding Technology Program, a student should be able to:

- demonstrate the use of welding and metal cutting processes safely and correctly.
- perform welding procedures in two or more methods on steel test plates in two or more welding positions.
- interpret and analyze fabrication prints, develop parts and cutting lists, and select and calibrate welding and cutting methods to fabricate assigned projects.

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all degree-applicable units. Only courses numbered 1-199 may apply toward the Associate Degree. Courses listed below may have prerequisites that must be completed prior to enrolling. Consult a schedule of classes, college catalog, or a counselor for further information.

## REQUIRED MAJOR COURSES

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS/SPE-5</td>
<td>Introduction to Organizational Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA-64</td>
<td>Industrial Print Reading</td>
<td>2.0</td>
</tr>
<tr>
<td>MEC-169</td>
<td>Hazardous Materials and Industrial Safety</td>
<td>1.0</td>
</tr>
<tr>
<td>WLD-52</td>
<td>Sheet Metal Fabrication</td>
<td>2.0</td>
</tr>
<tr>
<td>WLD-53</td>
<td>Welding Fabrication</td>
<td>2.0</td>
</tr>
<tr>
<td>WLD-54</td>
<td>Advanced Arc Welding</td>
<td>2.0</td>
</tr>
<tr>
<td>WLD-57</td>
<td>Pipe Welding</td>
<td>2.0</td>
</tr>
<tr>
<td>WLD-58</td>
<td>Handfacing and Surfacing</td>
<td>2.0</td>
</tr>
<tr>
<td>WLD-145</td>
<td>Special Projects</td>
<td>2.0</td>
</tr>
<tr>
<td>WLD-150</td>
<td>Basic Welding</td>
<td>2.0</td>
</tr>
<tr>
<td>WLD-151</td>
<td>Gas and TIG Welding</td>
<td>2.0</td>
</tr>
<tr>
<td>WLD-155</td>
<td>Ornamental Ironwork</td>
<td>2.0</td>
</tr>
<tr>
<td>WLD-156</td>
<td>Toolmaking</td>
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**SUBTOTAL UNITS (23.0)**

## RESTRICTED MAJOR ELECTIVES (Select a minimum of 10.0 units from the following)

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<th>Course Title</th>
<th>Units</th>
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<tbody>
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<td>DRA-50</td>
<td>Introduction to Drafting and Design</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA-52</td>
<td>Introduction to AutoCAD</td>
<td>2.0</td>
</tr>
<tr>
<td>ELE-57</td>
<td>Instruments and Controls</td>
<td>5.0</td>
</tr>
<tr>
<td>EGN-4</td>
<td>Material Science</td>
<td>3.0</td>
</tr>
<tr>
<td>WLD-99</td>
<td>Cooperative Work Experience</td>
<td>1.0-2.0</td>
</tr>
<tr>
<td>WLD-145</td>
<td>Special Projects</td>
<td>1.0-2.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (≥ 10.0)**

## ELECTIVES (Courses Numbered 1–199)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
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<tr>
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<tr>
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**SUBTOTAL UNITS (≥ 6.0)**

## REQUIRED GENERAL EDUCATION COURSES

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
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<tr>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
<tr>
<td>BUS/SPE-04</td>
<td>Introduction to Organizational Communication</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (≥ 21.0)**

**TOTAL UNITS (≥ 60.0)**

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite with a ‘C’ or better or a score of 70% or greater on the mathematics competency exam

†These courses are also Required Major Courses

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Hartnell College Catalog – 2009/10
WELDING TECHNOLOGY—CERTIFICATE OF ACHIEVEMENT

In all certificate programs, it is required that at least half of the required number of units be taken at Hartnell College. A grade of "C" or better must be maintained in all certificate-applicable units.

<table>
<thead>
<tr>
<th>✓ REQUIRED MAJOR COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>DRA-64</td>
<td>Industrial Print Reading</td>
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</tr>
<tr>
<td>Required Major Course</td>
<td>WLD-52</td>
<td>Sheet Metal Fabrication</td>
<td>2.0</td>
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<td>Required Major Course</td>
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<td>Required Major Course</td>
<td>WLD-156</td>
<td>Toolmaking</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MEC-169</td>
<td>Hazardous Materials and Industrial Safety</td>
<td>1.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ENG-101* or ESL-101*</td>
<td>Intermediate Composition and Reading or English for Academic Purposes II</td>
<td>(3.0) or (5.0)</td>
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<td>Required Major Course</td>
<td>MAT-151**</td>
<td>Technical Mathematics</td>
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<table>
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<tr>
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<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>DRA-50</td>
<td>Introduction to Drafting and Design Technology</td>
<td>3.0</td>
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<tr>
<td>Restricted Major Elective</td>
<td>DRA-52</td>
<td>Introduction to AutoCAD</td>
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<td>ELE-57</td>
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<td>WLD-145</td>
<td>Special Projects</td>
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</tr>
</tbody>
</table>

*Eligibility for ENG-1A fulfills this requirement.

**Eligibility for MAT-123 or completion of any math in which MAT-121 is a prerequisite with a grade of "C" or better or a score of 70% or greater on the mathematics competency exam fulfills this requirement.
ADMINISTRATION OF JUSTICE

ADJ1. Intro. to Administration of Justice (3)
Advisory: See below.
Lec 3 Hrs
Semesters Offered: Variable
Provides an overview of the American criminal justice system and the various subsystems. Focuses on the roles and role expectations of criminal justice agents in their interrelationships in society and emphasizes the concepts of crime causation, punishment and rehabilitation. Also discusses ethics, education and training for professionalism in the social system.
[CSU; UC; AREA DO, IGETC AREA 4]

ADJ2. Community Relations: Multicultural Diversity/ Discrimination (3)
Advisory: See below.
Lec 3 Hrs
Semesters Offered: Variable
A theoretical and conceptual overview of multicultural issues, including those relating to ethnicity, race relations, gender, age and sexual preference. The course focuses on cultural/ethnic minority groups in California including Black/African-American, Hispanic/ Latino and Asian American groups. The course also identifies problems related to our increasing diverse population; and examines strategies to overcome these problems, particularly in relation to the maintenance of social order and law enforcement.
[CSU; UC]

ADJ3. Concepts of Criminal Law (3)
Advisory: TC and hybrid advisory.
Lec 3 Hrs
Semesters Offered: Variable
An introduction to the legal system, the sources of law, the criminal court system and differences between civil and criminal law. The course focus will be classifying, defining and identifying crimes. Explores parties to crimes, defenses to crimes and the criminal aspects of the constitution.
[CSU; UC]

ADJ4. Criminal Evidence (3)
Pass/No Pass Option
Advisory: TC and hybrid advisory.
Lec 3 Hrs
Semesters Offered: Variable
An introduction to the legal system, the sources of law, and the criminal court system. The course focuses in particular on the trial process and classifications of evidence. A complete overview is offered of legal issues in criminal evidence such as admissibility, constitutional protections and the burden of proof. Also covered are general considerations in evidence such as inferences and presumptions, privilege, judicial notice, expert testimony, scientific and demonstrative evidence.
[CSU]

ADJ5. Criminal Procedures (3)
Pass/No Pass Option
Advisory: TC and hybrid advisory
Lec 3 Hrs
Semesters Offered: Variable
An introduction to the sources of law, the legal system, the criminal court system, and participants in the criminal justice system. An in-depth analysis of the constitution and its relationship to criminal procedure. Explores the laws of search, arrest, interrogation, arraignment, preliminary hearing, motion practice, trial procedure, sentencing and post-conviction remedies.
[CSU]

ADJ6. Criminal Investigation (3)
Pass/No Pass Option
Advisory: See below.
Lec 3 Hrs
Semesters Offered: Variable
A course designed to teach the fundamentals of investigation; crime scene preservation of evidence; scientific aids; modus operandi; sources of information, interviews and interrogation; follow-up and case preparation.
[CSU]

ADJ7. Juvenile Procedures (3)
Advisory: See below.
Lec 3 Hrs
Semesters Offered: Variable
Discussion of the theories of juvenile delinquency and juvenile justice. Introduction to the functions, organization and jurisdiction of juvenile agencies. Procedural steps in processing and detention of juveniles, from arrest and booking through trial and post-trial.
[CSU]

ADJ10. Law Enforcement Report Writing (3)
Advisory: See below.
Lec 3 Hrs
Semesters Offered: Variable
An introductory course emphasizing the practical aspects of organizing and preparing law enforcement written reports.
[CSU]

ADJ11. Legal Aspects of Corrections (3)
Pass/No Pass Option
Advisory: See below.
Lec 3 Hrs
Semesters Offered: Variable
An overview of the historical framework, concepts and precedents that guide correctional practice. Covers the corrections environment, civil rights of prisoners and liability of correctional officers.
[CSU]

ADJ12. Legal Aspects of Corrections (3)
Pass/No Pass Option
Advisory: See below.
Lec 3 Hrs
Semesters Offered: Variable
An introduction to the sources of law, the legal system, the criminal court system, and participants in the criminal justice system. An in-depth analysis of the constitution and its relationship to criminal procedure. Explores the laws of search, arrest, interrogation, arraignment, preliminary hearing, motion practice, trial procedure, sentencing and post-conviction remedies.
[CSU]

ADJ21A. Narcotics and Dangerous Drugs (3)
Advisory: See below.
Lec 3 Hrs
Semesters Offered: Variable
History, definition, identification, characteristic and treatment strategies of legal and illegal drugs and the enforcement of laws relating to them.
[CSU]

ADJ22. Correctional Interviewing and Counseling (3)
Pass/No Pass Option
Advisory: Students must have basic computer skills for operating Microsoft Word and e-mail, including sending attachments and files. Students also need access to the Internet and must have adequate hardware and software capabilities. Access to computers is also available at the Hartnell College Library/LRC.
Lec 3 Hrs
Semesters Offered: Variable
An overview of the interviewing and counseling techniques available to practitioners in corrections.
[CSU]

ADJ23. Drug Abuse (3)
Advisory: See below.
Lec 3 Hrs
Semesters Offered: Variable
Provides an overview of the historical framework, concepts and precedents that guide correctional practice. Covers the corrections environment, civil rights of prisoners and liability of correctional officers.
[CSU]

ADJ27. Contracts (3)
Pass/No Pass Option
Advisory: Students must have basic computer skills for operating Microsoft Word and e-mail, including sending attachments and files. Students also need access to the Internet and must have adequate hardware and software capabilities. Access to computers is also available at the Hartnell College Library/LRC.
Lec 3 Hrs
Semesters Offered: Variable
An introduction to the legal system, the sources of law, the criminal court system and differences between civil and criminal law. The course focus will be classifying, defining and identifying crimes. Explores parties to crimes, defenses to crimes and the criminal aspects of the constitution.
[CSU]
ADMINISTRATION OF JUSTICE

ADJ30. Sexual Assault Investigation (3)
Pass/No Pass Option
Advisory: See below.
Lec 3 Hrs
Semesters Offered: Variable
An in-depth study of the institutional response to victims of sexual assault. Covers current and recommended investigative techniques, community and institutional response to victims of sex crimes and methods of improving services with a focus on the needs of the victim.
[CSU]

ADJ33. Justice Professionals (3)
[CSU] with a focus on the needs of the victim.
and methods of improving services
institutional response to victims of sex
and methods of improving services
institutional response to victims of sexual assault.
An in-depth study of the institutional

ADJ35. Torts/Personal Injury Law
Pass/No Pass Option
Advisory: See below.
Lec 3 Hrs
Semesters Offered: Variable
A thorough overview of tort law, civil procedure and their relationship to the personal injury lawsuit. Students will gain a fundamental understanding of the United States legal system and basic legal research concepts. General training in client interviewing, evidence gathering and discovery techniques.
[CSU]

ADJ36. Legal Research and Writing (3)
Pass/No Pass Option
Advisory: See below.
Lec 3 Hrs
Semesters Offered: Variable
Provides students with the fundamentals of legal research. Research topics include law library references such as Shepard's Citations, West Digest system and key numbers, American Law Reports, legal periodicals, state revised statutes, annotated codes and on-line research. The course also focuses on the development of written communication skills essential to any law related career. Students will draft documents such as legal correspondence, memoranda, pleadings, motions, and discovery.
[CSU]

ADJ38. Family Law (3)
Pass/No Pass Option
Advisory: See below.
Lec 3 Hrs
Semesters Offered: Variable
Overview of the concepts necessary to a paralegal/legal assistant working in the field of family law. Topics covered include dissolution of marriage, adoptions, guardianship, child/spousal/family law pleadings, drafting of declarations, preparation of income and expense forms, drafting of marital settlement agreements and the use of interviewing checklists.
[CSU]

ADJ45. Special Projects (1-3)
Semesters Offered: Variable
Individual study research projects for qualified students. Designed to develop abilities in locating and evaluating research projects in the Administration of Justice field with emphasis upon the use of research and theoretical writings resulting in an acceptable written report.
[CSU]

ADJ50. Introduction to Correctional Science (3)
Advisory: See below.
Lec 3 Hrs
Semesters Offered: Variable
An introduction to various aspects of the corrections system. Covers the historical development of corrections and modern trends. Also includes a discussion of the goals of criminal sentencing, jails, prisons, prisoners' rights, alternatives to incarceration, probation and parole.
[CSU]

ADJ51. Criminology (3)
Advisory: TC and hybrid advisor.
Lec 3 Hrs
Semesters Offered: Variable
An examination of the theories of the psychological and social factors underlying crime and criminal behavior; crime statistics; patterns of antisocial behavior; treatment and preventative measure.
[CSU; CSU-GE, AREA D0]

ADJ61. Control and Supervision in Corrections (3)
Pass/No Pass Option
Advisory: See below.
Lec 3 Hrs
Semesters Offered: Variable
An overview of supervision of inmates in the local, state and federal correctional institutions. Covers institutional daily living, crisis situations, inmate subculture, violence, and the use of force on inmates. Also describes the role played by the officer and the correctional worker.
[CSU]

ADJ102. PC832 Arrest and Firearms (3.5)
Pass/No Pass Option
Advisory: Department of Justice written certification, stating that a student has no criminal history that would disqualify him/her from using a firearm is required prior to the start of the firearms practicum portion of the class according to the California Commission for Peace Officers Standards and Training (POST) and the California Penal Code 13511.5.
Lec 2.75; Lab 2.25
Semesters Offered: Variable
Designed to satisfy the curriculum standards of the Commission on Peace Officer Standards and Training (POST) as required by Penal Code 832 for peace officers. Topics include: professional orientation; introduction to criminal law with particular attention paid to Laws of Arrest, evidence, search and seizure; investigation; community relations; verbal and written communication; arrest and control techniques; firearms/chemical agents; and Cultural Diversity/ Discrimination, the use of firearms, situational use of deadly force, and arrest techniques. There will be a fee associated with the fingerprint clearance from the Department of Justice that is required prior to starting the firearms portion of the class.

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AGRICULTURAL AND INDUSTRIAL TECHNOLOGY

AIT66. Introduction to Geographic Information Systems (GIS) (4)
Lec 3 Hrs; Lab 3 Hr
Semesters Offered: Variable
An introduction to geographical information systems (GIS), including their use, input, analysis and output of spatial data. Topics include elements of a GIS, data structures and their management, and basic input and output functions and mapping possibilities. Hands-on exposure to computers and the current ArcGIS, GIS software package is provided during laboratory. Formerly AGR 66. Not open to students who have completed AGR 66, DRA 66, or CSS 66 with a grade of "C" or better.
[CSU]

AIT67. Applied GPS Technology (4)
Lec 2 Hrs; Lab 6 Hrs
Semesters Offered: Variable
Provides an introduction and extensive practice in the use and application of Global Positioning System technology in agricultural situations. Students will use GPS/DGPS receivers to map fields, navigate to waypoints, and record data when planning or managing inputs on fields. Formerly AGR 63. Not open to students who have completed AGR 67 with a grade of "C" or better.

AIT68. Crop and Yield Monitoring (4)
Lec 2 Hrs; Lab 6 Hrs
Semesters Offered: Variable
Gives the student instruction and practice in defining geographic locations and assessing referenced crop and soil conditions, use of data logging equipment, interpretation of remote sensing data, collecting and evaluating yield monitoring results, and developing GPS and GIS maps. Formerly AGR 64. Not open to students who have completed AGR 68 with a grade of "C" or better.

AIT71. Agricultural and Industrial Equipment Operation (3)
Lec 2 Hrs; Lab 1 Hr
Semesters Offered: Variable
Design principles, selection, maintenance, adjustment, and safe operation of wheel and track type tractors used in agriculture and in the construction industry. Students will operate a variety of equipment. Principles and application of safety will be stressed. Includes field trips.

AIT75. Agricultural Machinery Management (3)
Lec 2 Hrs Lab 3 Hrs
Semesters Offered: Variable
Use, maintenance, adjustment, calibration, and repair of the equipment commonly used in California agriculture. Emphasis on primary and secondary tillage, planting, chemical application, and harvesting equipment. The selection and operation of both machinery and tractors will be practiced. Safety will be stressed throughout. Formerly AGR 94. Not open to students who have completed AGR 94 with a grade of "C" or better.

AIT166. Hazwoper-24 Hour Certification (1.5)
Lec 31.5 Lab 40.5
Semesters Offered: Variable
The U.S. Occupational Safety and Health Administration (OSHA) has established regulations governing the health and safety of employees engaged in hazardous waste operations and emergency response. These regulations, codified at 29 CFR §1910.120, contain general requirements for health and safety programs, site characterization and analysis, site control, training, medical surveillance, engineering controls and work practices, personal protective equipment, exposure monitoring, informational programs, material handling, decontamination, and emergency procedures. This course is intended to satisfy CFR 1910.120 requirements. Formerly AGR 166. Not open to students who have completed AGR 166 with a grade of "C" or better.

AIT169. Hazardous Materials and Industrial Safety (1)
Lec 1 Hr
Semesters Offered: Variable
A basic course in all aspects of safety as it relates to industry. The course will cover the following topics: Hazardous Materials as it pertains to the specific trades. Examples are construction, welding, auto repair, electronics, auto collision repair, health care services, personal protective equipment, materials handling and storage, industrial hygiene, safety inspections, and general industrial safety of proper use of tools and machines. Formerly MEC 169 and AGR 169. Not open to students who have completed AGR 169 or MEC 169 with a grade of "C" or better.

AIT172. Agricultural Equipment Fabrication (3)
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
Involves the design and fabrication of agricultural and industrial equipment. Students will design equipment, select materials, estimate costs and fabricate a project. Principles and application of safety will be stressed. May include field trips.

AIT173. Agricultural Structures (3)
Lec 1 Hrs; Lab 3 Hrs
Semesters Offered: Variable
Introductory course in planning, designing and building small buildings, fences, gates and other structures necessary to agricultural enterprises. Topics to include characteristics and types of structures used in agriculture, as well as fabrication techniques and costs of materials. A practical course in building using metal, wood and other materials from planning to completion.

AIT174. Agricultural Machinery Service & Safety (3)
Lec 1 Hrs; Lab 3 Hrs
Semesters Offered: Variable
An applied study of equipment service and safety practices. Covers equipment service and basic troubleshooting, accident causation and prevention in the shop with a variety of tractors and machinery. Normal safety practices will be stressed. Supervised field operation and field trips will be required.

AIT267. Hazwoper-8 Hour Refresher Course (.5)
Pass/No Pass Only
Lec .5 Hr
Semesters Offered: Variable
Basic course covering toxicology, chemical hazards, types of protection, safe work practices, site control, decontamination contingency plan, and data collection and interpretation. Formerly AGR 267. Not open to students who have completed AGR 267 with a grade of "C" or better.

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### AGRICULTURE BUSINESS AND TECHNOLOGY

**ABT41.** Pesticide Applicator Certification Training (3)

*Lec 3 Hrs*

**Semesters Offered:** Variable

Common pests and their management, pesticide labels, mixing and applying pesticides, safety, and additional laws and regulations relating to pesticides. Protecting the environment will also be covered. Special category certifications will be covered depending on class need/interest. Designed to prepare students for the state pesticide laws and regulations exam. Formerly AGR 61. Not open to students who have completed AGR 61 with a grade of "C" or better.

*CSU*

**ABT49.** Introduction to Agriculture Business (3)

*Lec 3 Hrs*

**Semesters Offered:** Variable

A survey and basic understanding of the business and economics of the agriculture industry. It is an introduction to the economic aspects of agriculture and their implications to the agricultural producer, consumer and the food system. The management principles encountered in the day-to-day operation of an agricultural enterprise are stressed as they relate to the decision making process. Formerly AGR 49. Not open to students who have completed AGR 49 with a grade of "C" or better.

*CSU; UC*

**ABT51.** Agribusiness Management Project (2)

**Advisory:** Introduction to Agriculture Business, with a grade of "C" or better.

*Lec 1 Hr; Lab 3 Hrs*

**Semesters Offered:** Variable

Students have the opportunity to gain real-world experience in the planning and management of a business related project under faculty supervision. The class will cover the development of a business plan or a marketing plan. The students will select a project in cooperation with a local company to complete the project in a group working cooperatively. Formerly AGR 24. Not open to students who have completed AGR 24 with a grade of "C" or better.

*CSU*

**ABT52.** Sales and Service in Agribusiness (3)

*Lec 3 Hrs*

**Semesters Offered:** Variable

Involves the study of principles and practices of the selling process: selling strategies and approaches, why and how people buy, prospecting, territory management, and customer service. Self-management, communication, and interpersonal skills necessary in developing managerial abilities, leadership qualities, and facilitating teamwork within the agribusiness sector will be explored. Formerly AGR 52. Not open to students who have completed AGR 52 with a grade of "C" or better.

*CSU*

**ABT53.** Agribusiness Economics (3)

*Lec 3 Hrs*

**Semesters Offered:** Variable

Designed to further a student's study in agriculture and agricultural production in response to changing economic conditions. Optimum methods of agricultural production as well as impacts of technological change will be discussed in evaluating market structure and price formulating factors for agricultural products and inputs. Formerly AGR 53. Not open to students who have completed AGR 53 with a grade of "C" or better.

*CSU; UC*

**ABT54.** Agriculture Marketing (3)

*Lec 3 Hrs*

**Semesters Offered:** Variable

Survey of marketing aspects of the agricultural industry. An overview of the structure and institutional aspects of the marketing system including global agricultural markets. Industry studies of the marketing of selected locally grown commodities will be made. Course designed for students interested in Agriculture Business and Agriculture Production major. Formerly AGR 54. Not open to students who have completed AGR 54 with a grade of "C" or better.

*CSU*

**ABT55.** Agribusiness Information Technology (3)

**Semesters Offered:** Variable

An introduction to the laws and regulations governing the agriculture industry. Topics include government agencies and their functions, public and employee safety, insurance, agriculture organizations, labor and land issues, and water and air quality issues. Formerly AGR 91. Not open to students who have completed AGR 91 with a grade of "C" or better.

*CSU*

**ABT56.** An introduction to the laws and regulations affecting the agriculture industry. Topics include government agencies and their functions, public and employee safety, insurance, agriculture organizations, labor and land issues, and water and air quality issues. Formerly AGR 91. Not open to students who have completed AGR 91 with a grade of "C" or better.

*CSU*

**ABT57.** Agribusiness Computer Applications (3)

*Lec 2 Hrs; Lab 2 Hr*

**Semesters Offered:** Variable

Computer use in the workplace with emphasis on agribusiness situations. Computer applications including word-processing, spreadsheets, databases, and presentation managers will be covered. Also included will be accessing information through the Internet and World Wide Web, telecommunications, an introduction to web page design and other software appropriate to agribusiness. Formerly AGR 57. Not open to students who have completed AGR 57 with a grade of "C" or better.

*CSU; UC*

**ABT58.** Agriculture Laws and Regulations (3)

*Lec 3 Hrs*

**Semesters Offered:** Variable

An introduction to the laws and regulations affecting the agriculture industry. Topics include government agencies and their functions, public and employee safety, insurance, agriculture organizations, labor and land issues, and water and air quality issues. Formerly AGR 91. Not open to students who have completed AGR 91 with a grade of "C" or better.

*CSU*

**ABT59.** Soil Science (3)

*Lec 2 Hrs, Lab 3 Hrs*

**Semesters Offered:** Variable

Provides a basic knowledge of the genetic, physical, chemical, and biological properties of soils. Explores principles involved in the interpretation of soils information for land use management, (including agricultural production and non-agricultural uses), and conservation. Includes a weekly laboratory activity. Formerly AGR 90. Not open to students who have completed AGR 90 with a grade of "C" or better.

*CSU; UC; CSU-GE, AREA B1, B3; IGETC, AREA 5*

**ABT60.** Plant Science (3)

*Lec 3 Hrs*

**Semesters Offered:** Variable

An introduction to plant science including structure, growth processes, propagation, physiology, growth media, biological competitors, and post-harvest factors of food, fiber, and ornamental plants. Formerly AGR 92. Not open to students who have completed AGR 92 with a grade of "C" or better.

*CSU; UC; CSU-GE, AREA B2, B3; IGETC, AREA 5*

**ABT90.** Soil Science (3)

*Lec 3 Hrs*

**Semesters Offered:** Variable

An introduction to plant science including structure, growth processes, propagation, physiology, growth media, biological competitors, and post-harvest factors of food, fiber, and ornamental plants. Formerly AGR 92. Not open to students who have completed AGR 92 with a grade of "C" or better.

*CSU; UC; CSU-GE, AREA B2, B3; IGETC, AREA 5*

**ABT93.** Agricultural Computer Applications (3)

*Lec 2 Hrs, Lab 2 Hr*

**Semesters Offered:** Variable

Introduction to the specialties of post harvest technology and cold chain management. Focuses on post-harvest handling, processing and cooling of fresh vegetable and fruit products as well as the cooling systems and equipment involved. Topics include post-harvest biology and physiology, harvesting systems, preparation for the fresh market, packaging, cooling systems and product processing. Food safety and sanitation will be introduced. Field trips will be required. Formerly AGR 93. Not open to students who have completed AGR 93 with a grade of "C" or better.

*CSU*

**ABT94.** Plant Science (3)

*Lec 3 Hrs*

**Semesters Offered:** Variable

An introduction to plant science including structure, growth processes, propagation, physiology, growth media, biological competitors, and post-harvest factors of food, fiber, and ornamental plants. Formerly AGR 92. Not open to students who have completed AGR 92 with a grade of "C" or better.

*CSU; UC; CSU-GE, AREA B2, B3; IGETC, AREA 5*

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ABT94. Agriculture Enterprise Project (2)  
**Lec 1 Hr; Lab 3 Hrs**  
**Semesters Offered:** Variable  
Students will gain practical field experience in vegetable or horticultural crop production with an emphasis on organic certification. Working cooperatively in a small group, students will learn to develop a small scale production plan and complete the entire project cycle from ground preparation through harvest. Designed for students with a high level of commitment to agriculture. Formerly AGR 3. Not open to students who have completed AGR 3 with a grade of "C" or better.  
[CSU]

ABT96. Vegetable Crop Production (3)  
**Lec 2 Hrs; Lab 3 Hr**  
**Semesters Offered:** Variable  
Involves the study of vegetable production covering the botany, cultural aspects, harvesting, processing, growth characteristics, fertility, pests, and marketing of the major vegetable crops of the Central Coast and throughout California. Field trips to local vegetable production fields and the Hartnell East Campus facilities will be required. Formerly AGR 96. Not open to students who have completed AGR 96 with a grade of "C" or better.  
[CSU]

ABT97. Vineyard Production and Management (3)  
**Lec 2 Hrs; Lab 3 Hr**  
**Semesters Offered:** Variable  
Production and management practices of grapes and berries will be presented. Topics will include climate zones, soil selection, financing, farm organization, irrigation systems, field layout, varietal selection, nutritional needs, harvesting, labor management, marketing and budgeting. Students will be required to prepare a budget and calendar of operations. Field trips to local and regional vineyard or winery locations will be required. Formerly AGR 97. Not open to students who have completed AGR 97 with a grade of "C" or better.  
[CSU; UC]

ABT98. Fertilizers and Plant Nutrition (3)  
**Lec 2 Hrs; Lab 3 Hrs**  
**Semesters Offered:** Variable  
Covers the composition, value, selection, and use of fertilizer materials and soil amendments. Soil, plant, and fertilizer relationships will be covered. Application practices currently being used in California will be discussed. Includes field trips. Formerly AGR 98. Not open to students who have completed AGR 98 with a grade of "C" or better.  
[CSU]

ABT101. Organic Vegetable Production (1.5)  
**Lec 1 Hr; Ed 1.5 Hrs**  
**Semesters Offered:** Variable  
Intended for Agricultural Production majors and continuing education adults with interest in improving organic farming operations or making a transition to organic production methods. Covers the practical aspects of developing a crop plan that meets USDA certification requirements and insures sustainable production for long-term farm viability. Students will develop an overall farm plan that includes the following areas of detail: diversifying market options, choosing appropriate crops, establishing 4-year rotations, planting annual covercrops, and managing soil fertility in relation to total plant nutrition. Formerly AGR 101. Not open to students who have completed AGR 101 with a grade of "C" or better.  

ABT102. Organic Field Production Methods (1.5)  
**Lec 1 Hr; Lab 1.5 Hrs**  
**Semesters Offered:** Variable  
Intended for Agricultural Production majors and continuing education adults with interest in improving organic farming operations or making a transition to organic production methods. Covers the practical field methods involved in soil preparation, farm equipment management and maintenance, plan disease management, irrigation set-up and management, weed control, and integrated pest management that insures sustainable production for long-term farm viability. Students will complete field designs for a model 0.5-acre organic farm with descriptions of all inputs, potential control methods, and monitoring methods for crop health. Formerly AGR 102. Not open to students who have completed AGR 102 with a grade of "C" or better.  

ABT103. Agriculture Whole Farm Planning and Recordkeeping for Small Farmers (1.5)  
**Lec 1 Hr; Lab 1.5 Hrs**  
**Semesters Offered:** Variable  
Intended for Agricultural Production majors and continuing education adults with interest in improving organic farming operations or making a transition to organic production methods. Covers the practical aspects of daily farm management. Students will summarize these 5 aspects into an integrated document for presentation at the final course of PEPA, Programa Educativo para Pequenos Agricultores (Education Program for Young People in Agriculture). Formerly AGR 103. Not open to students who have completed AGR 103 with a grade of "C" or better.  

ABT104. Agriculture Business Development for New Organic Farmers (1.5)  
**Lec 1 Hr; Lab 1.5 Hrs**  
**Semesters Offered:** Variable  
Intended for Agricultural Production majors and continuing education adults with interest in starting up their own farming operation and beginning the process of business planning. Covers the legal obligations, state regulations, and federal laws governing agricultural operations with a focus on developing a business and marketing plan. Students will incorporate business-planning concepts into a presentation at the end of the PEPA, Programa Educativo para Pequenos Agricultores (Education Program for Young People in Agriculture). Formerly AGR 104. Not open to students who have completed AGR 104 with a grade of "C" or better.  

ABT105. Agriculture Marketing Opportunities and Growth for Organic Farming (1.5)  
**Lec 1 Hr; Lab 1.5 hrs**  
**Semesters Offered:** Variable  
Intended for Agricultural Production majors and continuing education adults with interest in improving organic farming operations or making a transition to organic production methods. Covers the marketing and sales options for organic produce with a focus on direct marketing to buyers. Students will research product offerings, delivery options, and pricing in a growing vegetable market that will be summarized into a presentation in the final courses of Programa Educativo para Pequenos Agricultores (Education Program for Young People in Agriculture). Formerly AGR 105. Not open to students who completed AGR 105 with a grade of "C" or better.  

ABT110. Careers in Agriculture and Technology (2)  
**Lec 2 Hrs**  
**Semesters Offered:** Variable  
Introduction to educational opportunities and career development in agriculture and related fields. Includes portfolio and educational plan development and curriculum requirements that pertain to educational goals as they relate to agriculture majors. Assists students in setting goals and developing interpersonal skills necessary for life-long success in obtaining, maintaining, and advancing in agriculture careers. Current events that impact agriculture and society will be discussed. Formerly AGR 110. Not open to students who have completed AGR 110 with a grade of "C" or better.
ABT160. Introduction to Agriculture (3)
   **Lec 3 Hrs**  
   **Semesters Offered:** Variable  
   A survey of agriculture products and the businesses that produce, service, and supply those products. Focuses on Central Coast fresh vegetable, viticulture and berry production. A broad view of California, United States, and world production will also be covered. The skill sets required in those businesses will be discussed. Surveys some of the career choices in the agriculture specialty areas. Formerly AGR 160. Not open to students who have completed AGR 160 with a grade of "C" or better.

ABT258. Agriculture Ambassadors (2)
   **Lec 1 Hr; Lab 3 Hrs**  
   **Semesters Offered:** Variable  
   Agriculture leadership training through application of individual and group leadership techniques. Requires participation as an Agriculture Ambassador team member in college recruitment activities, including giving recruitment presentations at off campus sites, hosting prospective student groups for on-campus visitations, and sponsoring recruitment activities for the local Agriculture industry. Formerly AGR 258. Not open to students who have completed AGR 258 with a grade of "C" or better.

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AOD1.  Fundamentals of Chemical Dependency (3)
Lec 3 Hrs
Semesters Offered:  Variable
An introduction and overview of basic concepts of chemical dependency including the history of alcohol and other mood-altering substances in the U.S. Myths and stereotypes of alcohol and drug use will be examined as well as sociocultural factors that contribute to the use of drugs. Theories of chemical dependency and an overview of the effects of various drug categories on human behavior, treatment and recovery approaches will be included. Designed for students interested in obtaining CAADAC certification.
[CSU]

AOD2.  Pharmacology and Physiology of Alcohol and Other Drugs (3)
Lec 3 Hrs
Semesters Offered:  Variable
An in-depth look at the physiologic action and effects of alcohol and other psychoactive drugs on the body and behavior. Emphasis is placed on the pharmacologic and neurobiological effects and medical consequences of abuse and addiction. Includes the pharmacologic basis of medications used for various psychiatric disorders as well as treatment considerations for substance abuse and dependency. Designed for students interested in obtaining CAADAC certification.
[CSU]

AOD3.  Intervention, Treatment and Recovery (3)
Lec 3 Hrs
Semesters Offered:  Variable
An introduction to the theory and practice of chemical dependency counseling with special emphasis on treatment planning, implementation and documentation. The core functions of the chemical dependency counselor in the early intervention, assessment and treatment planning phases of recovery counseling will be introduced and developed. The need to interface with others in the medical and mental health community in developing a multidimensional approach to treatment will be included. Designed for students interested in obtaining CAADAC certification.
[CSU]

AOD4.  Counseling Diverse Populations (3)
Lec 3 Hrs
Semesters Offered:  Variable
A counseling course that introduces the student to special population subgroups in alcohol and drug counseling and the unique helping skills used to support these populations. Particular focus is placed on gender, race, culture, age and sexual orientation as it relates to addiction and recovery.
[CSU]

AOD5.  Legal/Ethical Considerations and Professional Growth(3)
Lec 3 Hrs
Semesters Offered:  Variable
Explores the legal, ethical, professional and personal issues involved in the treatment of chemical dependency. Emphasis is placed on professional responsibility and patient rights as well as issues of the work place and professional growth.
[CSU]

AOD6.  Prevention, Education and Relapse Prevention (3)
Lec 3 Hrs
Semesters Offered:  Variable
Conceptual frameworks, major research, epidemiology, environmental risk factors and the effectiveness of various prevention strategies will be examined. In addition, client education strategies used in the treatment and relapse prevention phases of chemical dependency will be highlighted.
[CSU]

AOD7.  Individual Counseling Skills in Chemical Dependency (3)
Lec 3 Hrs
Semesters Offered:  Variable
An introduction to the basic skills and techniques of counseling for chemical dependency counselors. This course describes characteristics of an effective counselor, explores several theoretical models of counseling, and assists the individual to develop skills in active listening, building trust, reflecting feelings and content, and using motivational interviewing techniques. Stages of therapy and life span issues will receive special attention.
[CSU]

AOD8.  Family and Group Counseling (3)
Lec 3 Hrs
Semesters Offered:  Variable
A focus on family dynamics and group processes as they relate to chemical dependency. The dynamics of chemical dependency within family systems will be explored and interventions designed to assist family members to understand and cope with chemical dependency will be examined. In addition, group processes and dynamics will be examined with an emphasis on developing skills for group leadership.
[CSU]

AOD9.  Co-Occurring Disorders (3)
Lec 3 Hrs
Semesters Offered:  Variable
An introduction to the treatment needs of those who have one or more psychiatric disorders in combination with a chemical dependency disorder. Focus is placed on identification, assessment, current treatment approaches, medication, referral procedures, and interface with the professional mental health community.
[CSU]

AOD10.  Chemical Dependency Practicum Seminar(3)
Prerequisites:  AOD-1, AOD-2, AOD-3, AOD-4, AOD-5, AOD-6, AOD-7, AOD-8, AOD-9, PSY-22 with a grade "C" or better.
Corequisite:  AOD-99
Lec 3 Hrs
Semesters Offered:  Variable
Designed for students in their final semester of the AOD curriculum, this course is designed to support students as they complete the practicum/work experience requirements of the program. Emphasis is placed on developing the skills and abilities needed to work as a chemical dependency counselor.
[CSU]

AOD99.  Practicum in Chemical Dependency (3)
Lab 14 Hrs
Semesters Offered:  Variable
Designed for students in their last semester of the AOD program, this course provides students with a hands-on learning experience via a directed field study. Emphasis is placed on enabling the student to experience and perform the work of a chemical dependency counselor. Students must complete at least 255 hours of volunteer experience or 300 hours of paid work experience in an approved facility to meet unit requirements and CAADAC/CCBADC accreditation standards for practicum experience. Internship/job placement is not guaranteed.
[CSU]

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ANIMAL HEALTH TECHNOLOGY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Units</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHT45</td>
<td>Special Projects (1)</td>
<td>Lab 3 Hrs</td>
<td>Variable</td>
<td>A directed program of individual study or experience within an area of animal health technology that is beyond the scope of the regular curriculum. Completion of AHT 101, 102, 103, 104, 105, and 106 recommended.</td>
</tr>
<tr>
<td>AHT101</td>
<td>Introduction to Animal Health</td>
<td>Lec 2 Hrs</td>
<td>Variable</td>
<td>Introduces the students to basic animal health care concepts especially those relating to the dog and cat. The course will also discuss the veterinary medical profession and animal health technology as a career field. Recommended for students who have an interest in the animal health care field.</td>
</tr>
<tr>
<td>AHT102</td>
<td>Animal Care and Management I</td>
<td>Lec 2 Hrs; Lab 3 Hrs</td>
<td>Variable</td>
<td>Basic concepts of animal health care and management of a variety of species. Topics include breed identification, nutrition, social and reproductive patterns, and common disease problems of selected species, as well as principles of sanitation and disinfection. Laboratory sessions provide the opportunity to develop skills in animal husbandry, physical examination, restraint, and basic nursing care. Students also utilize computer assisted learning and self-paced study modules to reinforce subject matter. Students shall participate in care of colony animals and special assignments at scheduled times outside of normal class hours.</td>
</tr>
<tr>
<td>AHT103</td>
<td>Comparative Anatomy and Physiology (6.5)</td>
<td>Lec 4 Hrs; Lab 6 Hrs</td>
<td>Variable</td>
<td>Animal structures and functions and their application to procedures commonly employed in the practice of veterinary medicine. Each student will have the opportunity to perform dissections on a variety of animal preparations. Students also utilize computer assisted learning and self-paced study modules to reinforce subject matter.</td>
</tr>
<tr>
<td>AHT104</td>
<td>Comparative Pathology and Pharmacology (4.5)</td>
<td>Lec 4 Hrs; Lab 5 Hrs</td>
<td>Variable</td>
<td>Basic mechanisms of disease and veterinary therapeutics. The broader principles of pathology are applied toward a study of the more common animal diseases and the pharmacologic agents used to treat them. Students also utilize computer assisted learning and self-paced study modules to reinforce subject matter.</td>
</tr>
<tr>
<td>AHT105</td>
<td>Animal Care and Management/ Large Animals (4.5)</td>
<td>Lec 2 Hrs; Lab 3 Hrs</td>
<td>Variable</td>
<td>This course emphasizes the proper care and management of the horse, cow, sheep, goat, and pig. Topics include breed identification, nutrition, husbandry, management, breeding, equipment identification, and treatment techniques. Zoonoses, infectious diseases, vaccination protocol and health programs of large animals and small animals will be discussed. Drug dosage calculations will also be emphasized. Laboratory session.</td>
</tr>
<tr>
<td>AHT106</td>
<td>Clinical Procedures I (2.0)</td>
<td>Lec 2 Hrs; Lab 3 Hrs</td>
<td>Variable</td>
<td>A practice-oriented course designed to help the student develop the knowledge and skills required of animal health technicians in small animal veterinary practice. Lecture and laboratory sessions provide opportunities to develop skills in dispensing and administering pharmaceutical and biological products, dentistry procedures, anesthetic monitoring and various other routine therapeutic procedures.</td>
</tr>
<tr>
<td>AHT107</td>
<td>Clinical Procedures II (3.5)</td>
<td>Lec 2 Hrs; Lab 3 Hrs</td>
<td>Variable</td>
<td>A course designed to build upon the skills developed in Clinical Procedures I and other prior courses. Lecture and laboratory sessions provide opportunities to develop more advanced skills in animal nursing. Small animal topics include electrocardiography, application of coaptation casts and splints and veterinary emergency medicine. Advanced procedures in avian and equine care will also be presented. Students shall participate in care of colony animals and special assignments at scheduled times outside of normal class hours.</td>
</tr>
<tr>
<td>AHT108</td>
<td>Veterinary Office Practice and Interpersonal Skills (2)</td>
<td>Lec 2 Hrs</td>
<td>Variable</td>
<td>A practice-oriented course devoted to basic office procedures and client relations in veterinary practice. Job-hunting techniques, resume preparation and interviewing skills will be discussed. Ethical and legal considerations for the animal health technician and his/her employer will be discussed. Basic computer skills related to veterinary practice will be practiced.</td>
</tr>
<tr>
<td>AHT109</td>
<td>Veterinary Clinical Pathology (4)</td>
<td>Lec 2 Hrs; Lab 6 Hrs</td>
<td>Variable</td>
<td>A study of laboratory techniques commonly utilized in the diagnosis of animal disease. Lecture and laboratory topics include parasitology, hematology, serum chemistry, urinalysis, cytology and necropsy procedures.</td>
</tr>
</tbody>
</table>

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AHT110. Diagnostic Radiography (4.5)  
**Prerequisite:** Admission to the Hartnell College Animal Health Technology Program.  
Lec 2 Hrs; Lab 3 Hrs  
**Seminars Offered:** Variable  
A practice-oriented course designed to cover basic concepts of x-ray generation, positioning and processing techniques. Radiation safety will be emphasized throughout the course. Laboratory sessions provide the opportunity continue in the development of handling and restraint techniques, administration of medications, safety and disease control, and sanitation as it relates to veterinary practice. Most laboratory exercises will utilize live animal patients. Students will also utilize computer assisted learning and self-paced study modules to reinforce subject matter. Students shall participate in the care of colony animals and special assignments at scheduled times outside of normal class hours.

AHT111. Surgical Assisting and Anesthesiology (3.5)  
**Prerequisite:** Completion of AHT 104, 107, and 109 with a grade of C or better.  
Lec 2 Hrs; Lab 3 Hrs  
**Seminars Offered:** Variable  
This course will provide instruction and practice in patient preparation, surgical assistance, post-operative care, administration and monitoring of various anesthetic agents and the maintenance of a sterile environment. Students shall participate in the care of surgical patients and colony animals and special assignments at scheduled times outside of normal class hours. Students must provide their own scrubs.

AHT112. Clinical Seminar (4.5)  
**Advisory:** Concurrent enrollment with AHT-111 and AHT-113 or eligibility for National and State Board Exam.  
Lec 2 Hrs; Lab 3 Hrs  
**Seminars Offered:** Variable  
A capstone course where students synthesize and practice the full range of skills required to successfully assist a veterinarian. Course prepares students for National and State Board Examinations. Laboratory sessions provide the opportunity to enhance and sharpen skills learned throughout the AHT Program and provide direct experience in animal care, management, sanitation, nutrition, and nursing of selected species. Students also utilize computer assisted learning and self-paced study modules to reinforce subject matter. The student will participate in the care of colony animals and animals requiring nursing care at scheduled times outside of normal class hours.

AHT113. Current Veterinary Therapy in Small Animal Practice (2)  
**Prerequisite:** AHT 104, AHT 107, AHT 109, and 110.  
Lec 2 Hrs  
**Seminars Offered:** Variable  
Designed to provide descriptors of clinical features and current veterinary therapeutics employed in the most common disorders seen in small animal practice. Client education and the technician’s role in performing appropriate diagnostic tests will be discussed.

AHT114A. Introduction to Applied Animal Health (.5)  
**Prerequisite:** Admission to the Hartnell College AHT Program  
Lab 2 Hrs  
**Seminars Offered:** Variable  
A laboratory course designed to supplement instruction in animal husbandry skills. Provides the student with actual experience in animal care and management. Selected species are used to develop a better understanding of the relationship of animal care and management to animal health. Students are required to provide their own scrubs or lab coats.

AHT114B. Applied Animal Care and Management II (1)  
**Prerequisite:** Admission to the Hartnell College AHT Program  
Lab 3 Hrs  
**Seminars Offered:** Variable  
A laboratory course designed to supplement instruction in animal husbandry skills. Provides the student with actual experience in animal care and management with selected species so as to develop a better understanding of the relationship of animal care and management to animal health. Students will develop skills in teamwork and management of self and others as it relates to the work environment.

AHT114C. Applied Animal Care II (.5)  
**Prerequisite:** Admission to the Hartnell College AHT Program.  
Lab 1.5 Hrs  
**Seminars Offered:** Variable  
A laboratory course designed to develop expertise in animal husbandry and management. Provides students with opportunity to practice learned skills and apply knowledge of animal husbandry and care. Builds on learned skills to develop understanding of the relationship between animal care and management as it relates to animal and public health. Gives the students opportunity to practice animal nursing skills as they relate to veterinary medicine.

AHT145. Applied Animal Health Care (1)  
**Prerequisite:** Concurrent enrollment in AHT 102, 105, 106, 107, 110, or 111.  
Lab 3 Hrs  
**Seminars Offered:** Variable  
A laboratory course designed to supplement instruction in animal husbandry skills. Provides the student with actual experience in animal care and management with selected species so as to develop a better understanding of the relationship of animal care and management to animal health. Required course for all students currently enrolled in the Animal Health Technology program. May be repeated for a maximum of 4 units. Hours by arrangement.
ANT1. Physical Anthropology (3)
Advisory: See below.
Lec 3 Hrs
Semesters Offered: Variable
This course offers a survey of the evolution of mankind. It is designed to provide an introduction to the theory, principles and methodology employed to comprehend the process of evolution by emphasizing a biocultural approach to the discipline in order to understand the nature of our physical and cultural transformations. As such, it is a course that discusses the field of genetics and primate studies to analyze the origin of many of our biological and social characteristics. It then overviews the data pertaining to the environmental factors that forced our ancestors to produce culture and concludes by analyzing the paleoanthropological evidence that supports the theory of human evolution.
[CSU; UC; CSU-GE, AREA B2, D1; IGETC, AREA 5]

ANT2. Introduction to Cultural Anthropology (3)
Lec 3 Hrs
Semesters Offered: Variable
A survey of the range of cultural phenomena including language, patterns of subsistence, economic organization, marriage and the family, kinship, political organization, religion, the arts, and culture change. Methodology, concepts, and theories will be presented in the development of an anthropological perspective.
[CSU; UC; CSU-GE, AREA D1; IGETC, AREA 4]

ANT3. Introduction to Archeology (3)
Lec 3 Hrs
Semesters Offered: Variable
An examination of pre-history and the methods and theory of modern archeology; the contributions of archeology toward an understanding of the development of human culture from man’s emergence as a culture-bearing animal to the beginnings of written history.
[CSU; UC; CSU-GE, AREA D1; IGETC, AREA 4]

ANT10. California Indians (3)
Advisory: See below.
Lec 3 Hrs
Semesters Offered: Variable
This course offers a survey of the Native American societies of the region of California. It is a course designed to provide an introduction to the cultural evolution of Native Californians from prehistoric times to the present. As such, it is intended to discuss the archaeological, ethno historical and historical data in order to understand the cultural experiences of modern-day indigenous communities.
[CSU; UC; CSU-GE, AREA D1; IGETC, AREA 4]

ANT15. North American Indians (3)
Lec 3 Hrs
Semesters Offered: Variable
A survey of the native peoples and cultures of North America including the northern part of Mexico. Designed to provide an introduction through an ethnohistorical approach that considers aspects of traditional ethnography as well as the impact of historical events on American Indians extending to contemporary issues.
[CSU; UC; CSU-GE, AREA D1; IGETC, AREA 4]

ANT20. Cultures of Mexico (3)
Advisory: See below.
Lec 3 Hrs
Semesters Offered: Variable
A survey of the origin and development of the cultures of Mesoamerica (Central and Southern Mexico, Guatemala, Belize, El Salvador and parts of Honduras and Nicaragua) and the Chichimec and Greater Chichimec areas (Northern Mexico and the Southwest U.S.A.), also known as “Oasis America.” The course will encompass prehistoric and historic periods, beginning with the first settlers to the present indigenous communities.
[CSU; UC; CSU-GE, AREA D1; IGETC, AREA 4]

ANT45. Special Projects (1-3)
Semesters Offered: Variable
A supervised program of independent research and study in Anthropology. Completion of ANT 1 or 2 recommended.
[CSU]

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APP120. 1st Year Commercial Electrical
Appr. I (5)
Pass/No Pass Option
Prerequisite:  MAT-121 with a grade of "C" or better; students must apply to and be accepted into the Inside Apprenticeship program at the International Brotherhood of Electrical Workers (IBEW) Local Union #234 Joint Apprenticeship and Training Committee in Castroville, California. In addition, students must register with the State of California, Division of Apprenticeship Standards and the Federal Department of Labor, Office of Apprenticeship as an Indentured Inside Electrical Apprentice. This limitation is authorized by Section 3074.3 of the State Labor Code.
Lec 5 Hrs
Semesters Offered: Variable
First semester of the First year in the five-year commercial/Industrial Electrical apprenticeship Program leading to Journeyman Electrician certification in the electrical construction industry.

APP121. 1st Year Commercial Electrical
Appr. II (5)
Prerequisite:  APP 120 with a grade of "C" or better.
Lec 5 Hrs
Semesters Offered: Variable
Second semester of the first year in the five-year Commercial/Industrial Electrical Apprenticeship Program leading to Journeyman Electrician certification in the electrical construction industry. In this semester, the students will learn the basics of analysis of simple electrical circuits and learn to be able to use Ohm's law to solve for voltage, current, resistance and power values. They will also learn about three wire systems, electrical device configurations and the properties of electrical building wire.

APP122. 2nd Year Commercial Electrical
Appr. I (5)
Prerequisite:  APP 121 with a grade of "C" or better.
Lec 5 Hrs
Semesters Offered: Variable
First semester of the second year in the five-year Commercial/Industrial Electrical Apprenticeship Program leading to Journeyman Electrician certification in the electrical construction industry. This semester, the students will study the proper and safe use of electrical test instruments, gain an understanding of the structure and content of the National Electric Code, learn about alternating current and inductance, and use blueprints and specifications to identify and quantify electrical components involved in a construction project.

APP123. 2nd Year Commercial Electrical
Appr. II (5)
Prerequisite:  APP-122 with a grade of "C" or better.
Lec 5 Hrs
Semesters Offered: Variable
Second semester of the second year in the five-year Commercial/Industrial Electrical Apprenticeship Program leading to Journeyman Electrician certification in the electrical construction industry. Students will learn about capacitors and study the effects of capacitance, inductance and resistance on series, parallel and combination alternating current electrical systems. The concepts of circuit resonance and power factor will be cause-effect linked to circuit capacitive and inductive reactance values. Transformer theory of operation and real-world transformer connections will be taught and practiced. The National Electric Code will again be examined and more concepts from the Code will be learned in the last part of the semester.

APP124. 3rd Year Commercial Electrical
Appr. I (5)
Prerequisite:  APP 123 with a grade of "C" or better.
Lec 5 Hrs
Semesters Offered: Variable
First semester of the Third year in the five-year Commercial/Industrial Electrical Apprenticeship Program leading to Journeyman Electrician certification in the electrical construction industry. Begins with a study of electrical safety-related work practices and then moves into a review of blueprints and a study of industrial blueprints. Also included is a study of basic applied electronics with an emphasis on characteristics of semiconductors, power supplies, transistors and amplifiers.

APP125. 3rd Year Commercial Electrical
Appr. II (5)
Prerequisite:  APP 124 with a grade of "C" or better.
Lec 5 Hrs
Semesters Offered: Variable
Second semester of the Third year in the five-year Commercial/Industrial Electrical Apprenticeship Program leading to Journeyman Electrician certification in the electrical construction industry. Begins with a study of grounding and bonding fundamentals for AC electrical systems, a review of transformer theory and application to three-phase transformers and the proper selection and use of Overcurrent Protection Devices to clear ground faults and short circuits.

APP126. 4th Year Commercial Electrical
Appr. I (5)
Prerequisite:  APP-125 with a grade of "C" or better.
Lec 5 Hrs
Semesters Offered: Variable
The first semester of the fourth year in the five-year Commercial/Industrial Electrical Apprenticeship Program leading to Journeyman Electrician certification in the electrical construction industry. Students will learn about lightning protection, motors, and motor controls.

APP127. 4th Year Commercial Electrical
Appr. II (5)
Prerequisite:  APP-126 with a grade of "C" or better.
Lec 5 Hrs
Semesters Offered: Variable
The second semester of the fourth year in the five-year Commercial/Industrial Electrical Apprenticeship Program leading to Journeyman Electrician certification in the electrical construction industry. Students will learn about digital electronics, programmable logic control, air conditioning and refrigeration, cable fault locating, cable tray systems and will continue their study of the National Electric Code.

APP128. 5th Year Commercial Electrical
Appr. 1 (5)
Prerequisite:  APP-127 with a grade of "C" or better.
Lec 5 Hrs
Semesters Offered: Variable
The first semester of the Fifth year in the five-year Commercial/Industrial Electrical Apprenticeship Program leading to Journeyman Electrician certification in the electrical construction industry. Students will learn about the installation, operation and maintenance of different types of fire alarms systems; the fundamentals of instrumentation and process control; security system installation and operation; and structured cabling systems.

APP129. 5th Year Commercial Electrical
Appr. II (5)
Prerequisite:  APP-128 with a grade of "C" or better.
Lec 5 Hrs
Semesters Offered: Variable
The second semester of the fifth year in the five-year Commercial/Industrial Electrical Apprenticeship Program leading to Journeyman Electrician certification in the electrical construction industry. In this semester, the students will learn about the solar photovoltaic power generation systems, uninterruptible power supplies, fuel cells, high voltage testing, power distribution systems and power quality issues, building automation networks, and continue in their study of the National Electric Code.

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APP150. 1st Year Residential Wireman  
Apprenticeship 1st Semester (4)  
Pass/No Pass Option  
Lec 3.5 Hrs; Lab 1.5 Hrs  
Semesters Offered: Variable  
First semester of the first year in the three-year Residential Wiremen Apprenticeship Program leading to Residential Wireman certification in the residential electrical construction industry. Students must apply to and be accepted into the Residential Apprenticeship program at the International Brotherhood of Electrical Workers (IBEW) Local Union #234 Joint Apprenticeship and Training Committee in Castroville, California. In addition, students must register with the State of California, Division of Apprenticeship Standards as an Indentured Residential Electrical Apprentice. This limitation is authorized by Section 3074.3 of the State Labor Code.

APP151. 1st Year Residential Wireman  
Apprenticeship 2nd Semester (4)  
Prerequisite: Passing grade of 75% or better in APP 150.  
Lec 3.5 Hrs; Lab 1.5 Hrs  
Second semester of the first-year course in the three-year Residential Wireman Apprenticeship Program leading to Residential Wireman certification in the residential electrical construction industry.

APP152. 2nd Year Residential Wireman  
Apprenticeship 1st Semester (4)  
Prerequisite: Passing grade of 75% or better in APP 151.  
Lec 3.5 Hrs; Lab 1.5 Hrs  
Third course in the three-year Residential Wireman Apprenticeship Program leading to Residential Wireman certification in the residential electrical construction industry.

APP153. 2nd Year Residential Wireman  
Apprenticeship 2nd Semester (4)  
Prerequisite: Passing grade of 75% or better in APP 152.  
Lec 3.5 Hrs; Lab 1.5 Hrs  
Fourth course in the three-year Residential Wireman Apprenticeship Program leading to Residential Wireman certification in the residential electrical construction industry.

APP154. 3rd Year Residential Wireman  
Apprenticeship 1st Semester (4)  
Prerequisite: Passing grade of 75% or better in APP 153.  
Lec 3.5 Hrs; Lab 1.5 Hrs  
Fifth course in the three-year Residential Wireman Apprenticeship Program leading to Residential Wireman certification in the residential electrical construction industry.

APP155. 3rd Year Residential Wireman  
Apprenticeship 2nd Semester (4)  
Prerequisite: Passing grade of 75% or better in APP 154.  
Lec 3.5 Hrs; Lab 1.5 Hrs  
Sixth and final course in the three-year Residential Wireman Apprenticeship Program leading to Residential Wireman certification in the residential electrical construction industry.

APP245. Special Projects (.5-2)  
Pass/No Pass Option  
Semesters Offered: Variable  
Supervised study and individualized instruction for apprentices entering a trade or transferring to a Hartnell College apprenticeship program at a time when regularly scheduled classes are not available.

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ART1A.  History of Art (3)  
Lec 2 Hrs  
**Seminars Offered:** Variable  
A survey of the major monuments, styles, artists and historical periods of painting, sculpture and architecture from Mediterranean prehistory through Egypt, Mesopotamia, Greece, Rome and the Middle Ages of Western Europe.  
[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3]  

ART1B.  History of Art (3)  
Lec 3 Hrs  
**Seminars Offered:** Variable  
A survey of the major monuments, styles, artists and historical periods of painting, sculpture and architecture of Western Europe from the Late Gothic period through the mid-19th Century.  
[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3]  

ART1W.  Women in Art (3)  
Lec 3 Hrs  
**Seminars Offered:** Variable  
A survey of the contributions of women artists from the middle ages to the present. The relationship between women, their art, and their roles in society will be analyzed and compared through the visual language of art.  
[CSU]  

ART3.  Drawing and Composition (3)  
Lec 2 Hrs; Lab 4 Hrs  
**Seminars Offered:** Variable  
Surveys and applies the fundamentals of observation, drawing, and composition through the study of contour, shape, line, perspective, value, basic rendering, and creative applications of drawing.  
[CSU; UC]  

ART6A.  Watercolors and Gouache (3)  
Lec 2 Hrs; Lab 4 Hrs  
**Seminars Offered:** Variable  
The development of ideas, theory and techniques as applied to painting in watercolor and gouache media. Emphasis on color and value composition, as well as special and linear composition.  
[CSU; UC]  

ART6B.  Oils (3)  
Lec 2 Hrs; Lab 4 Hrs  
**Seminars Offered:** Variable  
The study of oil painting in transparent and opaque media. Techniques of media manipulation and application, compositional development, the effect of color on content and meaning, and preservation and handling of finished works are examined.  
[CSU; UC]  

ART6C.  Acrylics (3)  
Lec 2 Hrs; Lab 4 Hrs  
**Seminars Offered:** Variable  
Study of painting in opaque and transparent acrylics.  
[CSU; UC]  

ART10.  Art Appreciation (3)  
Lec 3 Hrs  
**Seminars Offered:** Variable  
An introductory study of art examining the styles, elements and techniques as well as the painting, sculpture and architecture of various historical periods and cultures.  
[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3]  

ART12A.  Design (3)  
Lec 2 Hrs; Lab 4 Hrs  
**Seminars Offered:** Variable  
This introductory course will examine the fundamentals of basic visualization and conceptualization in art studio theory and practice. Emphasis will be on the exploration of two-dimensional composition incorporating color, value, line and form.  
[CSU; UC]  

ART15A.  Ceramics A (3)  
Lec 2 Hrs; Lab 4 Hrs  
**Seminars Offered:** Variable  
An introductory study of clay and ceramic materials and their use in the creation of art objects by slab and coil methods; introduction to the potter's wheel and the use of glazes.  
[CSU; UC]  

ART15B.  Ceramics B (3)  
Lec 2 Hrs; Lab 4 Hrs  
**Seminars Offered:** Variable  
Further study of clay and ceramic materials and their use in the creation of art objects by slab and coil methods, the potter's wheel and the use and mixing of glazes and firing methods.  
[CSU; UC]  

ART33.  Weaving As An Art Form (3)  
Lec 2 Hrs; Lab 4 Hrs  
**Seminars Offered:** Variable  
An introductory study of fiber and textile materials and processes and their use in creating art objects using off loom and loom woven structures as well as a variety of related dyeing and fiber processes. Weaving classes may be repeated at the appropriate level but weaving enrollments are limited to a total of four.  
[CSU]  

ART34.  Adv. Weaving As An Art Form (3)  
**Prerequisite:** Art 33 with a grade of C or better.  
Lec 2 Hrs; Lab 4 Hrs  
**Seminars Offered:** Variable  
An advanced study of textiles on the four shaft loom. Creation of textile art that is designed and woven in complex weave structures such as double weaves. The history and use of a variety of natural and synthetic fibers and basic textile conservation techniques will be studied. Weaving classes may be repeated at the appropriate level but weaving enrollments are limited to a total of four.  
[CSU]  

ART41A.  Jewelry I (3)  
Lec 2 Hrs; Lab 4 Hrs  
**Seminars Offered:** Variable  
An introductory study of processes used in creating metal art objects. Emphasis on design and creation of small sculpture and jewelry through the development of technical skills and use of tools. Concentration on direct fabrication with introduction to indirect casting methods. Jewelry classes may be repeated at the appropriate level, but total Jewelry enrollments are limited to four.  
[CSU]  

ART41B.  Jewelry II (3)  
**Prerequisite:** Art 41A with a grade of C or better.  
Lec 2 Hrs; Lab 4 Hrs  
**Seminars Offered:** Variable  
Further study of processes used in creating metal art objects. Emphasis on design and creation of small sculpture and jewelry through the development of technical skills and use of tools. Continued study of direct fabrication but with concentration on casting methods. Jewelry classes may be repeated at the appropriate level, but total Jewelry enrollments are limited to four.  
[CSU]  

ART45.  Special Projects (1-3)  
**Seminars Offered:** Variable  
Individual projects concerned with material not normally a major part of a specific course. Projects may include production of an original artwork, an exhibition of this artwork, an extensive research paper, or a combination of the above.  
[CSU]  

ART46.  Art Practicum (1-3)  
**Seminars Offered:** Variable  
Supervised studio work in a selected medium.  
[CSU]  

ART 50. Gallery Management (3)  
Lec 2 Hrs; Lab 3 Hrs  
**Seminars Offered:** Variable  
A study and practice of gallery operations in organizing, preparing and installing exhibitions in various media.  
[CSU]  

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ART 51. Gallery Methods and Installation Procedures (3)
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
A study and practice of gallery preparatory methods and installation procedures for small scale exhibitions in various media. [CSU]

ART 52. Portfolio Development (1-3)
Advisory: Completion of at least two Studio classes in one specific medium, ie 15A and Art 15B.
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
The course will examine techniques and materials needed by art students planning on transferring to institutions for upper division study in the arts by portfolio admission. Students will develop appropriate written materials and a cohesive body of studio work in a single medium that emphasizes their level of technical skill and personal style. Aspiring artists develop a portfolio for presentation to a gallery to obtain professional representation. Students may enroll up to three times provided the portfolio content is different each enrollment. [CSU]

ART 70. Graphic Design/Computer Graphics (3)
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
The study and application of the methods, tools, and materials of graphic design. This course brings together a blend of design and practical computer-based production skills. Structuring graphic design information from concept through final product, students will use the computer graphic applications of Adobe Illustrator, Adobe InDesign, and Corel Painter on the Macintosh computer. Not open to those students who have successfully completed CIS 70 or CSS 70 with a grade of "C" or better. [CSU]

ART 71. Introduction to 2D Digital Illustration (3)
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
This introductory course will examine the historic and artistic expressions of Western civilization art and translate the visual experience into a contemporary digital art medium. Students will study the aesthetic principles of drawing through two-dimensional digital vector and pixel-oriented illustration. Students will acquire hands-on experience with the illustration concepts of visual weight, solidity, depth, balance, eye flow, color theory, angle of view, composition placement, using tonal values to indicate a light source and I, 2, and 3 point perspective. [CSU]

ART 72. Introduction to Digital Arts (3)
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
A hands-on approach to learning the fundamentals of multimedia. Students will explore essential topics including: text, graphics, animation, full motion video, interface design, principles of interactivity, development process, and applications and future directions of multimedia. Previous computer experience is recommended. Not open to students who completed CSS 72 or CIS 72. [CSU]

ART 73. Introduction to Digital Illustration for Animation (3)
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
An introduction to the historic study of the visual representation of animated motion in both Eastern and Western civilization art and the translation into a contemporary digital art medium. Students will examine digital illustration with an emphasis on the preparation of visual imagery for animation. Concentration will be placed on illustrating gesture and movement, storyboarding, skeletal framework, and anatomical details. Students will have hands on experience with figure characters, object models and two-dimensional sequential movement illustration. [CSU]

ART 75. 3D Modeling for Digital Animation (3)
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
This course will cover the techniques of 3D modeling for digital animation. Students will utilize the computer application LightWave 3D for hands-on experience with modeling, the application of lighting and surfaces on 3D models and rendering. Not open to those students who have successfully completed CSS 75. [CSU]

ART 76. 3D Digital Animation (3)
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
This course will cover techniques of 3D digital animation. Students will utilize 3D computer application software for hands-on experience with keyframe animation. Students will learn high-end surface techniques, the application of lighting on animated scenes, the use of cameras in the 3D scene and the use of environmental effects. Students will experience the character animation skills of building a skeletal structure for keyframe animation of the 3D model and learn to render still images and animated QuickTime movies. [CSU]

ART 77. Digital Video and Audio Editing and Production (3)
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
Digital video production and editing utilizing the software applications of Final Cut Pro and Adobe After Effects. Students will use video and audio editing software to create Quicktime movies for presentations, CD/Roms and DVD’s. Not open to students who have completed CIS 77 or CSS 77 with a grade of "C" or better. [CSU]

ART 80. Digital Photographic Imaging (3)
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
A course in digital photographic imaging. Students will utilize Adobe Photoshop to work with scanned photographs and photographs from digital camera equipment. Not open to students who have successfully completed CIS 80, CSS 80 or PHO 80. [CSU]

ART 85. Interactive Digital Media Interface Design (3)
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
Hands-on instruction in the design of an interface for an interactive multimedia product for web development or CD/DVD distribution. Students will integrate text, audio, video, graphics and animation to create productions for art media portfolios, corporate marketing, instructional presentations or business demonstrations. Students will choose a theme, determine a premise, structure a story board and create a multimedia production. Not open to students who have completed CIS 85 or CSS 85 with a grade of "C" or better. [CSU]

ART 87. Web Authoring (3)
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
This course provides hands-on instruction in the tools and techniques essential to producing quality content for World Wide Web sites. Topics will include markup tags and attributes, layout tables, framesets, internal and external links, and graphic file management and presentation. Students will utilize a practical development methodology that emphasizes appropriate informational structuring and visual design. Not open to students who have successfully completed CIS or CSS 87. [CSU]
ART100. Ceramics: European Folk Traditions (3)
Lec 2 Hrs; Lab 4 Hrs
Seminars Offered: Variable
A study of ceramic three-dimensional forms and skill building production methods with emphasis on the European folk tradition.

ART101. Ceramics: Chinese and Korean Traditions (3)
Lec 2 Hrs; Lab 4 Hrs
Seminars Offered: Variable
Introduction to Ceramic Forms methods with Emphasis on Chinese and Korean Traditions.

ART102. Ceramics: Japanese Traditions (3)
Lec 2 Hrs; Lab 4 Hrs
Seminars Offered: Variable
Introduction to Ceramic Forms and Methods with Emphasis on Japanese Traditions.

ART103. Ceramics: Pre-Columbian Traditions (3)
Lec 2 Hrs; Lab 4 Hrs
Seminars Offered: Variable
Introduction to Ceramic Forms and Methods with Emphasis on Pre-Columbian Mesoamerican and Peruvian Traditions.

ART110. Textiles: European Folk Traditions (3)
Lec 2 Hrs; Lab 4 Hrs
Seminars Offered: Variable
A study of textile design and skill building production methods with emphasis on European folk traditions.

ART111. Textiles: Chinese and Korean Folk Traditions (3)
Lec 2 Hrs; Lab 4 Hrs
Seminars Offered: Variable
A study of textile design and skill building production methods with emphasis on Chinese and Korean folk traditions.

ART112. Textiles: Japanese Folk Traditions (3)
Lec 2 Hrs; Lab 4 Hrs
Seminars Offered: Variable
A study of textile design and skill building production methods with emphasis on Japanese folk traditions.

ART113. Textiles: Pre-Columbian Traditions (3)
Lec 2 Hrs; Lab 4 Hrs
Seminars Offered: Variable
A study of textile design and skill building production methods with emphasis on Pre-Columbian art traditions.

ART150. Low-Fire Ceramics (1)
Pass/No Pass Option
Lec .5 Hrs; Lab 1.5 Hrs
Seminars Offered: Variable
Forming and firing clay emphasizing traditional and experimental low-fire processes.

ART219. Primitive Firing (1)
Pass/No Pass Option
Lec .5 Hrs; Lab 1.5 Hrs
Seminars Offered: Variable
Forming and firing clay emphasizing traditional and experimental primitive firing process.

ART220. Raku Workshop (1)
Pass/No Pass Option
Lec .5 Hrs; Lab 1.5 Hrs
Seminars Offered: Variable
Forming and firing clay emphasizing traditional and experimental raku processes.

Advisory: Students taking online courses must have basic computer skills for operating Microsoft Word and e-mail, including sending attachments and files. Students also need access to the Internet and must have adequate hardware and software capabilities. Access to computers is also available at the Hartnell College Library/LRC.
AST1. Introduction to Astronomy (3)

Advisory: If this course is taken online, proctored exams will be required, either at Hartnell College or at an approved remote site. If the exam is to be administered offsite, it is the student’s responsibility to arrange for the site and proctor, provide contact information for the proctor to the instructor, and obtain consent for this arrangement from the instructor prior to the exam date.

Lec 3 Hrs

Semesters Offered: Variable

A comprehensive survey of modern astronomy with an emphasis on the scientific method and the interpretation of astronomical data in discovering the nature of the solar system and the universe. Planetarium demonstrations are included. Suitable for students from all majors and acceptable for physical science credit at any state college or university. Lab requirement can be satisfied when combined with AST1L.

[CSU; UC; CSU GE, AREA B1; IGETC, AREA 5]

AST1L. Astronomy Laboratory (1)

Corequisite: AST 1

Lab 3 Hrs

Semesters Offered: Variable

Laboratory course in astronomy that uses a combination of experiments, NASA data, and computer software to teach the basic principles and methods of modern astronomy. Students will make their own measurements and use astronomical data to identify objects in the night sky and to learn about the properties of light, telescopes, stars, and galaxies. A field trip to an observatory and extensive use of the digital Planetarium is included.

[CSU; UC; CSU GE, AREA B3; IGETC, AREA 5]

AST45. Special Projects (1-3)

Semesters Offered: Variable

This special projects astronomy Laboratory is designed to enable the student to investigate topics beyond the scope of a regular astronomy course. Students will gain hands-on experience in reducing and analyzing astronomical data. Target students would be STEM (Science, Technology, Engineering, and Math) students of exceptional promise who would like to apply their skills and knowledge in advanced topics of astronomy and astrophysics. This course may be taken three times with different content for a maximum of nine units.

[CSU]
AUC70. Spot Repair and Refinishing (5)
  Lec 2.5 Hrs; Lab 3 Hrs
  Prerequisite: AUC 50, 70, 72, 74 & WLD 50 with a grade of C or better.
  Semesters Offered: Variable
  This course introduces the student to the principles of automotive refinishing. The student will receive instruction in the use/care of spray equipment and spray guns, correct spray patterns, preparation of spot, and complete painting. Completion of AUC 50 is recommended, also completion of Auto Collision Repair 70A, 70B, and 70C is equivalent to 70.

AUC70A. Spot Repair & Refinishing (2)
  Lec 1 Hr; Lab 3 Hrs
  Semesters Offered: Variable
  This course introduces the student to the principles of automotive refinishing. The student will receive instruction in the use and care of spray equipment and spray guns, correct spray patterns, preparation of spot and complete painting. This course is a subset of AUC Repair 70. Completion of AUC 50 is recommended.

AUC70B. Spot Repair & Refinishing (2)
  Lec 1 Hr; Lab 3 Hrs
  Semesters Offered: Variable
  This course introduces the student to the principles of automotive refinishing. The student will receive instruction in the use and care of spray equipment, metal preparation, correct use of spray guns, and refinishing procedures. This course is a subset of AUC70. Completion of AUC 50 is recommended.

AUC70C. Spot Repair & Refinishing (2)
  Lec 1 Hr; Lab 3 Hrs
  Semesters Offered: Variable
  This course introduces the student to the principles of automotive refinishing. The student will receive instruction in the use of spray equipment, rubbing compounds, and proper reduction for each type of paint. The course emphasizes correct spray refinishing procedures and preparation of paint materials. This course is a subset of AUC70. Completion of AUC 50 is recommended.

AUC76. Advanced Repair, Replacement and Refinishing (2)
  Prerequisite: AUC 50, 70, 72, 74 & WLD 50 with a grade of C or better.
  Lab 6 Hrs
  Semesters Offered: Variable
  An advanced laboratory course dealing with body repair, glass, refinishing, and decorative trim.

AUC145. Special Projects (5-2)
  Pass/No Pass Option
  Semesters Offered: Variable
  Special assigned projects on supervised study and laboratory practice in auto collision repair. May be repeated for a maximum of six units.

AUC150. Introduction to Auto Collision Repair & Refinishing (5)
  Pass/No Pass Option
  Lec 2.5 Hrs; Lab 7.5 Hrs
  Semesters Offered: Variable
  This course introduces the student to principles and basic techniques of auto body collision repair. Industrial safety and proper use of tools of the trade are stressed. Application of these principles and techniques to minor auto body collision repair are taught in both classroom and shop laboratory settings. Completion of AUC 150A, 150B, 150C is equivalent to AUC 150. This course is not open to students who have successfully completed AUC 50 or 150A.

AUC150A. Introduction to Auto Collision Repair & Refinishing (2)
  Pass/No Pass Option
  Lec 1 Hr; Lab 3 Hrs
  Semesters Offered: Variable
  This course introduces the student to principles and basic techniques of auto body collision repair. Industrial safety and proper use of tools of the trade are stressed. Application of these principles and techniques to minor auto body collision repair are taught in both classroom and shop laboratory settings. Completion of AUC 150A, 150B, 150C is equivalent to AUC 150. This course is not open to students who have successfully completed AUC 50 or 150.

AUC150B. Introduction to Auto Collision Repair & Refinishing (2)
  Pass/No Pass Option
  Lec 1 Hr; Lab 3 Hrs
  Semesters Offered: Variable
  This course introduces the student to principles and basic techniques of auto body collision repair. Industrial safety and proper use of tools of the trade are stressed. Application of these principles and techniques to minor auto body collision repair are taught in both classroom and shop laboratory settings. Completion of AUC 150A, 150B, 150C is equivalent to AUC 150. This course is not open to students who have successfully completed AUC 50 or 150.

AUC150C. Introduction to Auto Collision Repair & Refinishing (2)
  Pass/No Pass Option
  Lec 1 Hr; Lab 3 Hrs
  Semesters Offered: Variable
  This course introduces the student to principles and basic techniques of auto body collision repair. Industrial safety and proper use of tools of the trade are stressed. Application of these principles and techniques to minor auto body collision repair are taught in both classroom and shop laboratory settings. Completion of AUC 150A, 150B, 150C is equivalent to AUC 150. This course is not open to students who have completed AUC 50 or 150A.

AUC171. Repair and Refinishing
  Lab 3 Hrs
  Semesters Offered: Variable
  This is a laboratory course designed for those who wish to further utilize basic skills in body repair and refinishing. Completion of AUC 50 and WLD 50 is recommended.

AUC172. Advanced Repair and Refinishing Laboratory (1)
  Lab 3 Hrs
  Semesters Offered: Variable
  Advanced lab course designed for those who wish to further their skills in body repair and refinishing. Completion of AUC 50 and WLD 50 is recommended.

AUC173. Auto Body Repair and Replacement (5)
  Advisory: Completion of AUC 150 (previously AUC 50) and WLD 150 (previously WLD 50).
  Lec 1.5 Hrs; Lab 10.5 Hrs
  Semesters Offered: Variable
  This course will cover the repair of damaged auto body sheet metal, removal and replacement of doors, hoods, deck lids, plastic repair, and their alignment; how to recognize direct and indirect damage; removal and replacement of stationary and movable auto glass. Completion of AUC 173A, 173B, and 173C is equivalent to 173. Not open to students who have successfully completed AUC 72, 72A, 72B, 72C, 173A, 173B, 173C.

AUC173A. Auto Body Repair and Replacement (2)
  Advisory: Completion of AUC 150 (previously AUC 50) and WLD 150 (previously WLD 50).
  Lec 1 Hr; Lab 3 Hrs
  Semesters Offered: Variable
  This course will cover the repair equipment for auto body sheet metal. The student will learn to recognize direct and indirect damage. This course is a subset of Auto Collision Repair 173. Not open to students who have successfully completed AUC 72 or 173.

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AUC173B. Auto Body Repair and Replacement (2)
Advisory: Completion of AUC 150 (previously AUC 50) or WLD 150 (previously WLD 50).
Lec 1 Hr; Lab 3 Hrs
Semesters Offered: Variable
This course will cover the repair of damaged auto body sheet metal, removal and replacement of doors, hoods, deck lids, and alignment with a review of direct and indirect damage. This course is a subset of Auto Collision Repair 173. Not open to students who have successfully completed AUC 72 or 173.

AUC173C. Auto Body Repair and Replacement (2)
Advisory: Completion of AUC 150 (previously AUC 50) and WLD 150 (previously WLD 50).
Lec 1 Hr; Lab 3 Hrs
Semesters Offered: Variable
This course will cover the repair of damaged auto body sheet metal. The student will remove and replace collision damaged quarter panels and auto glass, and review proper alignment methods. This course is a subset of Auto Collision Repair 173. Not open to students who have successfully completed AUC 72 or AUC 173.

AUC174A. Frame and Unibody Repair (3)
Prerequisite: AUC 150 (previously AUC 50) and WLD 150 (previously WLD 50) with a grade of C or better.
Advisory: Completion of AUC 173 (previously AUC 72).
Lec 2.25 Hrs; Lab 2.25 Hrs
Semesters Offered: Variable
This course will focus on the different types of automotive frames, unibody construction, and use of Chief Frame Straightener, computerized laser measuring, and body gauges measuring. This course meets ASE and I-CAR Certification requirements.

AUC174B. Frame and Unibody Repair (3)
Prerequisite: AUC 174A with a grade of C or better.
Lec 2.25 Hrs; Lab 2.25 Hrs
Semesters Offered: Variable
This course will focus on the different types of automotive frames, unibody construction, and use of Chief Frame Straightener, computerized laser measuring, and body gauges measuring. This course meets ASE and I-CAR Certification requirements.

AUC174C. Frame and Unibody Repair (3)
Prerequisite: Auto Collision 174B with a grade of C or better.
Lec 2.25 Hr; Lab 2.25 Hr
Semesters Offered: Variable
This course will focus on the different types of automotive frames, unibody construction, and use of Chief Frame Straightener, computerized laser measuring, and body gauges measuring. This course meets ASE and I-CAR Certification requirements.

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AUT50. Introduction to Automotive Repair (4)
Pass/No Pass Option
Lec 2 Hrs; Lab 6 Hrs
Semesters Offered: Variable
A basic course covering safety, the use of service publications, and the technical knowledge and skills in all areas of the vehicle to reach a minimum skill level. Completion of this course will provide terminal skills for employment as an automotive service station attendant. Completion of AUT-50A, and 50B is equivalent to 50.
[CSU]

AUT51. Auto Engine Performance and Diagnostics (4)
Lec 2 Hrs; Lab 6 Hrs
Semesters Offered: Variable
Diagnosis and repair of gasolene engines, including ignition system diagnosis, repair procedures, valve adjusting, fuel system testing, servicing turbochargers, exhaust and intake systems diagnosis and repair emission controls diagnosis and repair. Proper use of tools and literature to perform adjustments and troubleshooting to maintain proper engine performance.

AUT61. Auto Machining I (4)
Lec 2 Hrs; Lab 6 Hrs
Semesters Offered: Variable
[CSU]

AUT62. Auto Machining II (4)
Lec 2 Hrs; Lab 6 Hrs
Semesters Offered: Variable
Automotive technician skill development with emphasis on precision and productivity in rebuilding, servicing, and installing engines. Research and preparation of equipment operation and maintenance instruction. Reconditioning engine short block assemblies and components including assembly and testing. Compliance with automotive machine shop practice including engine repair, assembly, testing, and installation. Analysis of service and installation procedures. Parts and labor estimating.
[CSU]

AUT71. Auto Brake Systems and Controls (4)
Lec 2 Hr; Lab 6 Hrs
Semesters Offered: Variable
Theory, service and repair of conventional ABS brake systems. Automotive repair exercises develop skills and knowledge in the use of equipment used in servicing automotive brake systems. Identify and interpret brake system concerns; determine necessary repair action. Research applicable vehicle and service information, such as brake system operation, vehicle service history, service precautions, and technical service bulletins.
[CSU]

AUT72. Fuel System and Emissions Control (4)
Lec 3 Hrs; Lab 3 Hrs
Semesters Offered: Variable
Covers fuel systems, and emissions control systems, including theory of operation, diagnosis, adjustments and repair. Use of the ignition oscilloscope, dynamometer, and infrared gas analyzer is stressed. Fuel injectors, fuel pumps, intake manifolds and exhaust systems are covered in detail. Emission controls systems studied are positive crankcase ventilation, exhaust gas recirculation, evaporative emissions control, and exhaust gas treatment. Research applicable vehicle and service information, vehicle service history, service precautions, and technical service bulletins.
[CSU]

AUT73. Automotive Electricity and Electronics (4)
Lec 2 Hrs; Lab 6 Hrs.
Semesters Offered: Variable
Provides a strong background in basic automotive electricity and electronic concepts. Includes automotive electrical and electronic systems, basic theories, electrical components, wiring and circuit diagrams, automotive batteries, starting systems, lighting circuits, electrical accessories, electronic systems, introduction to the body computer, vehicle communication networks, advanced lighting circuits, instrumentation and warning lamps, ignition systems, electronic chassis control and accessory systems, and passive restraint systems.
[CSU]

AUT76A. Fuel Injection System (Cold Starting System) (2)
Prerequisite: AUT55 with a grade of C or better.
Lec 1 Hr; Lab 3 Hrs
Semesters Offered: Variable
This course will introduce the different types of fuel qualities and the various applications of fuel.
[CSU]

AUT76B. Fuel Injection System (2)
Prerequisite: AUT76A with a grade of C or better.
Lec 1 Hr; Lab 3 Hrs
Semesters Offered: Variable
This course will introduce the Detroit diesel and Cummins fuel injection systems.
[CSU]

AUT76C. Diesel Fuel Test Stand (2)
Prerequisite: AUT76A and 76B with a grade of C or better.
Lec 1 Hr; Lab 3 Hrs
Semesters Offered: Variable
This course is a further study of fuel injection systems used on diesel engines. Included is the operation of the injection pump test stand used for testing and calibration of Bosch PSB test.
[CSU]

AUT76D. Diesel Fuel Injection System Calibration (2)
Prerequisite: AUT776C with a grade of C or better.
Lec 1 Hr; Lab 3 Hrs
Semesters Offered: Variable
Advanced studies of procedures required to properly test, rebuild and calibrate fuel injection systems used on diesel engines. Students will become familiar with the testing and calibration of Cummins PT and Detroit fuel systems.
[CSU]

AUT81. Auto Drive Train (4)
Lec 2 Hrs; Lab 6 Hrs
Semesters Offered: Variable
Covers drive trains and axles, drive train theory, clutches, manual transmissions/ transaxles, drive shafts and universal joints, differentials and drive axles, four-wheel-drive systems, advanced four-wheel-drive systems, drive train electrical and electronic systems.
[CSU]

AUT82. Automatic Transmissions and Transaxles (4)
Lec 2 Hrs; Lab 6 Hrs
Semesters Offered: Variable
Covers drive train basics, drive train theory, general theories of operation, electronic controls, transmission designs, torque converters and oil pumps, hydraulic circuits and controls, gears and shafts, and reaction and friction units.
[CSU]

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AUT83. Automotive Wheel Alignment and Suspension (4)  
**Lec 2 Hrs; Lab 6 Hrs**  
**Semesters Offered:** Variable  
Covers toe, camber, caster, axle inclination, turning radius, and axle alignment affecting tire wear, directional stability, and handling, check and adjustment of manual steering gear, preload and backlash. Additionally, course content includes power steering system, operation of an electronically variable power steering system, tire and wheel theory and service, hydraulic shock absorbers and McPherson strut suspensions theory.  
[CSU]

AUT85. Transmission Troubleshooting  
Diagnosis & Repair (2)  
**Prerequisite:** AUT81A or 81B. All prerequisites must be completed with a grade of C or better.  
**Lec 1 Hr; Lab 3 Hrs**  
**Semesters Offered:** Variable  
Transmission troubleshooting, remove, replace, and rebuild full standard and automatic transmissions.  
[CSU]

AUT86. Automotive Electronics and Engine Performance (4)  
**Lec 2 Hrs; Lab 6 Hrs**  
**Semesters Offered:** Variable  
Covers safety, basic electrical theories, electrical and electronic components, basic electrical troubleshooting and service, wiring repair, automotive batteries, battery diagnosis and service, starting system, charging systems, lighting circuits repair and diagnosis, electronic ignition systems, and basic ignition system diagnosis and service. Also covers introduction to computers, computer controlled ignition systems, electrical fuel injection diagnosis and service, on-board diagnostic scanners and digital storage oscilloscopes, and strategies of on-board diagnostics.  
[CSU]

AUT91B. Diesel Engine Rebuild (2)  
**Prerequisite:** AUT91A with a grade of C or better.  
**Lec 1 Hr; Lab 3 Hrs**  
**Semesters Offered:** Variable  
This course will offer processes for conducting an out-of-frame maintenance service on diesel engine, tune-up, and systems components adjustments.

AUT103. Automotive Engines (4)  
**Lec 2 Hrs; Lab 6 Hrs**  
**Semesters Offered:** Variable  
Covers engine construction, diagnosis, disassembly, engine operation, engine shop safety, diagnosing engine problems, engine removal, inspection, and in-chassis repairs. Additionally includes cleaning the engine; cylinder head, parts and service; cylinder head, springs, valves, and valve seats; power development, manifolds, superchargers; engine balancing, pistons, rings, and connecting rods; lubrication, cooling system, and engine repair and reassembly.

AUT110. Automotive Climate Control (4)  
**Lec 2 Hrs; Lab 6 Hrs**  
**Semesters Offered:** Variable  
Covers automotive comfort, pressure and temperature climate control systems, refrigerants and lubricants, special service tools, moisture and moisture removal, the refrigeration system, compressors and clutches, compressor service, system components and metering devices, electricity and electronics review, electrical circuits, control devices, engine cooling and comfort heating, troubleshooting and repair, retrofit R-12 to R-134a; utilizes MACS certification training manual.

AUT114. Auto Fuel Systems (3)  
**Lec 2 Hrs; Lab 3 Hrs**  
**Semesters Offered:** Variable  
Automotive fuel systems as used in today's and yesterday's vehicles; including the fuel and air induction systems, carburetors, fuel injection systems. Exhaust systems and fuel delivery systems; including evaporative emission controls and diagnosis and repair of these systems.

AUT120. Introduction to Alternative Fuels and Electric Hybrid Vehicles (2)  
**Lec 2 Hrs**  
**Semesters Offered:** Variable  
Covers the technology of alternative fuels, electric hybrid vehicles, and fuel cells. Students learn how alternative fuels influence changes in vehicle engine and electrical systems, emission systems, and components. Utilizes Toyota, Honda, or Chrysler-specific materials as well as other current hybrid technology demonstration materials.

AUT121. Hybrid, Electric, and Fuel-Cell Vehicles (2)  
**Lec 2 Hrs**  
**Semesters Offered:** Variable  
Introduces the student to electric vehicles, electrical basics, motor and generator basics, battery basics, and the basics of a battery-operated electric vehicle. Covers HEV basics, mild and assist hybrids, fuel hybrids maintenance and service, fuel cell and other possible vehicles.

AUT145. Special Projects (.5-2)  
**Pass/No Pass Option**  
**Semesters Offered:** Variable  
Supervised study and laboratory practice involving special problems including troubleshooting using electronic test equipment. Machine tool operation not covered in basic curriculum. May be repeated for a maximum of 6 units.

AUT150. Introduction to Heavy Duty Diesel Technology (4)  
**Lec 2 Hr; Lab 6 Hrs**  
**Semesters Offered:** Variable  
Covers the principles of operation and system service procedures for all systems found on today's diesel/heavy-equipment. Includes introduction to shop and personal safety, proper use of hand tools, shop equipment, and research for information related to the repairs being performed and vehicle specifications using service manuals and computer software format.

AUT151. Heavy Duty Diesel Preventive Maintenance (2)  
**Lec 1 Hr; Lab 6 Hrs**  
**Semesters Offered:** Variable  
Introduces basic maintenance, diagnosis, and servicing of all heavy duty diesel systems, from tool and shop safety through the steps necessary to maintain a modern heavy duty diesel vehicle. Examines basic systems such as electrical, lubrication, heating, cooling, exhaust, and transmission systems in depth.

AUT152. Heavy Duty Diesel Technology Electricity and Electronics (4)  
**Lec 2 Hr; Lab 6 Hrs**  
**Semesters Offered:** Variable  
Provides strong background in basic electricity and electronic concepts. Covers diesel/heavy-duty technology electrical and electronic systems, basic theories, electrical components, wiring and circuit diagrams, diesel/ heavy-duty technology batteries, starting systems, and ignition systems. Covers the principles of operation and system service procedures for all systems found on today's diesel/heavy-duty equipment.

AUT153. Heavy Duty Diesel Brakes, Steering and Suspension (3)  
**Lec 1 Hr; Lab 6 Hrs**  
**Semesters Offered:** Variable  
Introduces air brake components, hydraulic brakes and air-over-hydraulic brake systems, air brake servicing, steering and alignment, suspension systems, chassis systems/ safety/brakes inspection, and brakes operation fundamentals. Includes discussion and hands-on servicing of suspensions system fundamentals, suspension system service, steering system service, wheel alignment fundamentals, and front and rear wheel drive fundamentals.

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### AUT154. Heavy Duty Diesel Engine Performance and Diagnostics (4)
**Lec 2 Hr; Lab 6 Hrs**
**Semesters Offered:** Variable
Introduces techniques of performing diagnosis and repair of heavy duty diesel engines, including diesel electronic engine control systems, valve adjustment of in diesel engine block and overhead camshafts, diesel fuel injection system testing and servicing. Covers servicing turbochargers, service, diagnostics and repair of exhaust and intake systems, and emission controls diagnosis and repair. Heavy emphasis on proper use of tools and literature to perform all needed testing.

### AUT155. Heavy Duty diesel Equipment Climate Control (3)
**Lec 1 Hr; Lab 6 Hrs**
**Semesters Offered:** Variable
Covers heavy duty diesel climate control and refrigerant systems; including pressure and temperature, refrigerants and lubricants, and special service tools. Involves detailed study of compressors and clutches, compressor service and system components and metering devices, and electricity and electronics review. Includes troubleshooting and repair, retrofit R-12 to R-134a, MACS certification training manual.

### AUT156. Heavy Duty Diesel Engine Rebuild (3)
**Lec 1 Hr; Lab 6 Hrs**
**Semesters Offered:** Variable
Covers heavy duty diesel construction, diagnosis, disassembly, inspection, operation, and shop safety. Includes engine balancing, evaluation of pistons and rings, engine repair and reassembly. Specific emphasis on repair and assembly using vehicle specifications from service manuals and technical publications.

### AUT157. Heavy Duty Diesel Electronics Systems and Controls (4)
**Lec 2 Hr; Lab 6 Hrs**
**Semesters Offered:** Variable
Covers all aspects of heavy duty diesel electronic systems and controls. Provides a study of diesel starting, charging, and accessory electrical systems and components. An emphasis is placed on electrical system diagnosis and electrical repair. Includes using various industry standard diagnostic electrical equipment and testing techniques.

### AUT158. Heavy Duty Diesel Power Drive Train (3)
**Lec 1 Hr; Lab 6 Hrs**
**Semesters Offered:** Variable
Covers drive trains and axles, drive train theory, clutches, manual transmissions, drive shafts and universal joints, differentials and drive axles, drive train electrical and electronic systems. Provides theory, diagnosis, and service of clutches, driveline, synchro transmissions and final drives, torque converters, and automatic transmission. Includes proper repair and service of assemblies for standard and automatic transmissions.

### AUT159. Heavy Duty Diesel Automatic Transmissions (4)
**Lec 2 Hr; Lab 6 Hrs**
**Semesters Offered:** Variable
Covers drive train basics, drive train theory, general theories of operation, electronic controls, transmission designs, torque converters and oil pumps, hydraulic circuits and controls, gears and shafts, reaction and friction units.

### AUT179. Automotive Business and Shop Management (4)
**Lec 2 Hr; Lab 6 Hrs**
**Semesters Offered:** Variable
Covers the service manager and the business structure, ownership, types of facilities and the service manager's job, strategic business planning, preparing formatted systems, human resources management, recruitment and selection of new employees, introduction and personnel development, evaluation of employee performances and basics business practices. Also covers the accounting process and financial statements, paying employees and the labor sales worksheet, sale of parts, financial management of a parts profit center, and basics of business law.

### AUT251. Automotive Inspection, Service, and Maintenance. (3)
**Pass/No Pass Option**
**Lec 1.5 Hrs; Lab 3.5 Hrs**
**Semesters Offered:** Variable
Introduces students to the basic maintenance, diagnosis, and servicing of all automotive systems, from tool and shop safety through the steps necessary to maintain a modern motor vehicle. Course coverage spans the spectrum of automotive servicing, examining basic systems such as electrical, lubrication, heating, cooling, exhaust, and transmission systems. Provides students with the foundation necessary to deal with the more complex maintenance problems.

### AUT271. California BAR Clean Air Car Course (5)
**Lec 5 Hrs**
**Semesters Offered:** Variable
Covers fundamental principles of motor emission inspection and maintenance. Provides the legal background necessary to analyze malfunctions, repair, assemble, and adjust those systems and devices of the automobile covered by legal standards and limitations. Covers various techniques and applications of sound shop and/or agency practices. Provides overview of all modules of the complete Clean Air Car Course. (To be eligible for the California BAR Clean Air Car state licensing exam at completion of the course, the following experience in addition to course completion is required: One year or more of trade experience in emissions/tune up, or a minimum of 9 semester units (13 quarter units), or 180 hours at an accredited school, registered Automotive Apprentice.)
BIO1. Fundamental Biological Concepts (5)
Prerequisite: MAT 123 or two years of high school algebra; CHM 22 or CHM 60 or CHM 1A, or successful completion of any college-level chemistry course. All prerequisites must be completed with a grade of C or better.
Lec 3 Hrs; Lab 6 Hrs
Semesters Offered: Spring
An introduction to the study of the structure and function of living systems with an emphasis on the molecular and cellular levels of organization and the roles of DNA, genetics and evolution as the unifying concepts of biology. Recommended for biology, pre-medical, pre-dental and pre-veterinary majors.
[CSU; UC; CSU-GE, AREA B2, B3; IGETC, AREA 5]

BIO2. General Zoology (5)
Prerequisite: MAT 123 or two years of high school algebra. All prerequisites must be completed with a grade of C or better.
Advisory: A college-level biology course.
Lec 3 Hrs; Lab 6 Hrs
Semesters Offered: Fall
An introduction to the study of animals and their diversity of form and function. An emphasis will be made on comparative morphology, physiology and behavior and on the application of evolutionary and ecological principles to animal populations. This course will also explore the historical development of animal sciences and current innovations in zoological research. Laboratory and field activities will introduce students to methods of systematics and ecological study and to the diversity of the animal groups.
[CSU; UC; CSU-GE, AREA B2, B3; IGETC, AREA 5]

BIO3. General Botany (5)
Prerequisite: MAT 123 or two years of high school algebra. All prerequisites must be completed with a grade of C or better.
Advisory: A college-level biology course.
Lec 3 Hrs; Lab 6 Hrs
Semesters Offered: Spring
An introduction to the principles of plant biology with emphasis on their structure, function, reproduction, genetics, phylogenetics, systematics, and ecology. Required for biology majors.
[CSU; UC; CSU-GE, AREA B2, B3; IGETC, AREA 5]

BIO5. Human Anatomy (4)
Advisory: A college-level biology course.
Lec 3 Hrs; Lab 3 Hrs
Semesters Offered: Variable
A survey of the structure of the human body including the integumentary, skeletal, muscular, digestive, nervous, lymphatic, cardiovascular, endocrine, respiratory, urinary, and reproductive systems. The course is designed to appeal primarily to physical education and nursing majors but may be profitably taken by any student.
[CSU; UC; CSU-GE, AREA B2, B3; IGETC, AREA 5]

BIO6. Introductory Physiology (3)
Prerequisite: BIO 5 or BIO 1, AND completion of any college-level chemistry course. All prerequisites must be completed with a grade of C or better.
Lec 3 Hrs
Semesters Offered: Variable
An introduction to the study of the structure and function of human systems with an emphasis on the contribution of cellular and tissue structure and function to homeostasis. Recommended for health-related certificate programs, nursing, biology, physical education, pre-med, pre-dental and pre-veterinary majors.
[CSU; UC; CSU-GE, AREA B2; IGETC, AREA 5]

BIO6L. Physiology Laboratory (2)
Corequisite: BIO-6
Lab 6 Hrs
Semesters Offered: Variable
An introduction to the laboratory study of the structure and function of human systems with an emphasis on the collection and analysis of chemical and physical data which relate to the concept of homeostasis in the human body. Recommended for health-related certificate programs, physical education, biology, pre-med, pre-dental and pre-veterinary majors.
[CSU; UC; CSU-GE, AREA B2, B3; IGETC, AREA 5]

BIO7. General Microbiology (5)
Prerequisite: Chemistry 1A with a grade of C or better.
Advisory: Completion of any college level biology course with a grade of C or better. For nursing students completion of coursework in human anatomy and physiology (e.g., BIO 5 and BIO 6/6L) is strongly recommended.
Lec 3 Hrs; Lab 6 Hrs
Semesters Offered: Variable
A general introduction to the study of bacterial, viruses, fungi, algae and protozoa, with major emphasis on the study of bacteria. Aspects of microbiology important in health, sanitation, food processing and biotechnology are emphasized. This course will include laboratory investigations of microbial ecology, bacterial genetics and immunological assays in greater depth than in BIO 27. Recommended for students interested in the health professions, as well as those who require a transferable course with rigorous laboratory preparation.
[CSU; UC; IGETC, AREA 5]

BIO10. General Biology (4)
Lec 3 Hrs; Lab 3 Hrs
Semesters Offered: Variable
An introduction to the facts and principles of general biology with emphasis on the diversity, morphology, heredity, evolution, and ecology of living organisms.
[CSU; UC; CSU-GE, AREA B2, B3; IGETC, AREA 5]

BIO11. Introductory Human Anatomy and Physiology (4)
Lec 3 Hrs; Lab 3 Hrs
Semesters Offered: Variable
An introduction to the biology of the human being. The structure and function of the organ systems of the human body, and their contributions to homeostasis will be emphasized in lecture and laboratory.
[CSU; UC; CSU-GE, AREA B2, B3; IGETC, AREA 5]
BIO12. Introduction to Genetics (3)

Pass/No Pass Option

Advisory: Completion of one year of beginning algebra (high school or college) with a grade of C or better. See below.

Lec 3 Hrs

Semesters Offered: Variable

An introduction to the fundamental principles of genetics and heredity. Students will investigate the transmission of traits from one generation to the next, the molecular structure of genes and gene products, the regulation of gene expression, and factors affecting gene frequencies in populations. Students will also analyze the social, legal and ethical implications of advances in genetic technology as applied to medicine and biotechnology. The course is designed for all students interested in the science and application of genetics.

[CSU; UC; CSU-GE, AREA B2; IGETC, AREA 5]

BIO13. Introduction to Forensic DNA Analysis (3)

Lec 3 Hrs

Semesters Offered: Variable

An introduction to forensic DNA analysis with emphasis on biology and case studies. Students will develop an appreciation for forensic DNA methodologies and an understanding of their limitations in solving crimes. Designed for all students interested in learning the basic principles of molecular human identification.

[CSU; UC; CSU-GE, AREA B2]

BIO18. Physiology of Human Health and Disease (3)

Lec 3 Hrs;

Semesters Offered: Variable

Prerequisite: BIO-11 with a grade of “C” or better, or BIO-6, BIO-6L and BIO-5 with a grade of “C” or better.

Introduction to concepts of altered physiological function affecting individuals and the biologic basis for disease. Content includes basics of cellular biology, cancer, the infection process, and the immune system. Focus on specific body systems and common disorders.

[CSU; UC; CSU-GE, AREA B2; IGETC, AREA 5]

BIO20. Field Biology/Natural Science (4)

Lec 3 Hrs; Lab 3 Hrs

Semesters Offered: Variable

An introduction to the natural history of bacteria, fungi, protists, plants and animals. Identification, classification, life histories, and ecological relationships will be investigated. Recommended for students interested in outdoor biological studies.

[CSU; UC; CSU-GE, AREA B2, B3; IGETC, AREA 5]

BIO27. Principles of Microbiology (4)

Prerequisite: Completion of any college-level biology course with a grade of C or better.

Advisory: Completion of any college level biology course with a grade of C or better.

Lec 3 Hrs; Lab 3 Hrs

Semesters Offered: Variable

A general introduction to the study of bacteria, viruses, fungi, algae and protozoa, with major emphasis on the study of bacteria. Aspects of microbiology important in health, sanitation, food processing and biotechnology are emphasized in lecture and laboratory. This course is designed for students majoring in biological sciences, nursing, and other health science majors.

[CSU; UC; CSU-GE, AREA B2, B3; IGETC, AREA 5]

BIO30. Marine Biology (4)

Lec 3 Hrs; Lab 3 Hrs

Semesters Offered: Variable


[CSU; UC; CSU-GE, AREA B2, B3; IGETC, AREA 5]

BIO42. Human Biology (3)

Advisory: See below.

Lec 3 Hrs

Semesters Offered: Variable

Topics in the life sciences that pertain directly to humans and are important to an understanding of one’s self and one’s world as well as being interesting and relevant to the present day human condition.

[CSU; UC; CSU-GE, AREA B2, E; IGETC, AREA 5]

BIO45. Special Projects (1-3)

Semesters Offered: Variable

Designed for biology students who are interested in investigating topics beyond the scope of an existing biology course. Students will gain hands-on experience in specialized biological research. This course may be taken three times with different or advanced content for a maximum of nine units.

[CSU]

BIO47. Ecology (4)

Lec 3 Hrs; Lab 3 Hrs

Semesters Offered: Variable

Introduction to the relationships between organisms and their environments. Emphasis on habitats, organismal biology, energy flow, nutrient cycles, natural populations, communities, and human interactions with natural ecosystems. Field trips required. Recommended for science and non-science majors who desire a general knowledge and appreciation of ecosystems.

[CSU; UC; CSU-GE, AREA B2, B3; IGETC, AREA 5]

BIO48. Environmental Science (3)

Advisory: See below.

Lec 3 Hrs

Semesters Offered: Variable

An introduction to the impact of the human population on the environment. Stress will be placed on ecological concepts related to solving land, air and water pollution problems. Natural resources and the impact of pollution on agriculture and wildlife communities will be covered.

[CSU; UC; CSU-GE, AREA B2 IGETC, AREA 5]

BIO48L. Environmental Science Laboratory (1)

Pass/No Pass Option

Corequisite: BIO 48: Environmental Science

Lab 3 Hrs

Semesters Offered: Variable

Introduction to the study of the environment through hands-on field and laboratory experiments. Emphasis on ecological principles, populations, natural resources, energy use, and lifestyle choices.

[CSU]
BUS1A. Financial Accounting (4)
Pass/No Pass Option
Advisory: Recommend concurrent enrollment in BUS 104, Financial Accounting Computer Applications; recommend successful completion of 30 units of Business Administration major and/or General Education courses.
Lec 3.5 Hrs; Lab 1.5 Hrs
Semesters Offered: Variable
Transfer class required for all business students. Principles and theories of financial accounting for business majors. Emphasizes analysis of periodic financial transactions, statements, and reports used and generated by profit-motivated businesses.
[CSU; UC]

BUS1B. Managerial Accounting (4)
Pass/No Pass Option
Prerequisite: BUS1A Financial Accounting with a grade of "C" or better.
Advisory: BUS105, Microcomputer Applications for Managerial Accounting.
Lec 3.5 Hrs; Lab 1.5 Hrs
Semesters Offered: Variable
Continuation of BUS 1A. Emphasizes how internal accounting information is provided to management within the organization rather than users outside the organization. Includes cost accounting, cost-volume-profit analysis, budgeting, segment accounting, variance investigation, and information for decision alternatives.
[CSU; UC]

BUS5. Introduction to Organizational Communication (3)
Advisory: ENG-101 or ESL-101 with a grade of "C" or better.
Lec 3 Hrs
Semesters Offered: Variable
Presents the oral communication skills required to succeed in different business contexts. Areas of study include communication theory in dyads, small group, leaderless groups and business presentations. Areas of study include: sexual harassment, meeting organization, problem solving and negotiations, interviewing, and cultural issues in the workplace. Not open to students who have completed SPE-5 with a grade of "C" or better.
[CSU; CSU-GE AREA A1]

BUS18. The Legal Environment of Business (3)
Advisory: BUS104, Introduction to Organizational Communication
Semesters Offered: Variable
Lec 3 Hrs
Provides students with an in-depth analysis of the law pertaining to contract formation, contract performance, discharge, and breach. Students will learn to apply substantive concepts to practical applications such as the negotiation process, interpretation of contract provisions, and the drafting of simple agreements. Not available to students who have completed ADJ 26 with a grade of C or better.
[CSU]

BUS26. Contracts (3)
Pass/No Pass Option
Advisory: See below.
Lec 3 Hrs
Semesters Offered: Variable
Provides students with an in-depth analysis of the law pertaining to contract formation, contract performance, discharge, and breach. Students will learn to apply substantive concepts to practical applications such as the negotiation process, interpretation of contract provisions, and the drafting of simple agreements. Not available to students who have completed ADJ 26 with a grade of C or better.
[CSU]

BUS30. Students in Free Enterprise (3-4)
Pass/No Pass Option
Semesters Offered: Variable
Lec 3 Hrs
Business leadership training and experience using the student leadership organization, Students In Free Enterprise (SIFE). Participation on college-sponsored teams to compete against students from other colleges while acquiring knowledge and skills regarding teaching, service, leadership, organization, networking, and communication as it relates to the community.
[CSU]

BUS32. Introduction to Business (3)
Pass/No Pass Option
Lec 3 Hrs
Semesters Offered: Variable
This course presents fundamentals of business. Provides a basic vocabulary of business terms and an understanding of the scope of a regular business course. Students gain hands-on experience in advanced business topics involving project management. This course may be taken three times with different or advanced content for a maximum of nine units.
[CSU]

BUS34. Small Business Management (3)
Pass/No Pass Option
Lec 3 Hrs
Semesters Offered: Variable
This course introduces the risks and rewards of small business ownership/management by surveying the fundamentals of organizing, planning, financing, staffing, marketing and operating a small business. The goal is to build practical knowledge and skills to help ensure success in owning and/or managing a small business.
[CSU]

BUS45. Special Projects (1.5-3)
Pass/No Pass Option
Prerequisite: Permission of instructor and review approval of the Area Dean.
Advisory: Students must have basic computer skills for operating Microsoft Word and e-mail, including sending attachments and files. Students also need access to the Internet and must have adequate hardware and software capabilities. Access to computers is also available at the Hartnell College Library/LRC.
Semesters Offered: Variable
Designed for business students who are interested in investigating topics beyond the scope of a regular business course. Students will gain hands-on experience in advanced business topics involving project management. This course may be taken three times with different or advanced content for a maximum of nine units.
[CSU]

BUS71. Office Procedures (4)
Pass/No Pass Option
Lec 4 Hrs
Semesters Offered: Variable
An introduction to general office work. Topics include office career opportunities, general office procedures, problem solving approaches, teamwork, time management techniques, contemporary office technology, document preparation and distribution, including mailing, meeting planning, and contemporary internal financial procedures.
[CSU]

BUS104. Microcomputer Applications for Financial Accounting (1)
Pass/No Pass Only
Advisory: Concurrent enrollment in or completion of BUS 1A, Financial Accounting.
Lec .5 Hr; Lab 1.5 Hrs
Semesters Offered: Variable
Introduction to a computerized accounting information system. Students gain merchandising concern experience using a microcomputer as a business tool and receive reinforcement of the accounting procedures and basic concepts studied in Financial Accounting. Not open to students who have completed BUS 2.

Advisory: Students taking online courses must have basic computer skills for operating Microsoft Word and e-mail, including sending attachments and files. Students also need access to the Internet and must have adequate hardware and software capabilities. Access to computers is also available at the Hartnell College Library/LRC.
BUS105. Microcomputer Applications for Managerial Accounting (1)
Pass/No Pass Only
Advisory: Concurrent enrollment in or completion of BUS 1B, Managerial Accounting.
Lec .5 Hrs; Lab 1.5 Hrs
Semesters Offered: Variable
Use of a computerized accounting information system. Students gain production environment experience using a microcomputer as a business tool and receive reinforcement of the accounting procedures and basic concepts studied in Managerial Accounting. Not open to students who have completed BUS 3.

BUS109. Intro. to PC Applications (4)
Pass/No Pass Option
Advisory: Keyboarding speed of 25 words a minute recommended.
Lec 3.5 Hrs; Lab 1.5 Hrs
Semesters Offered: Variable
An introduction to computer hardware, operating systems, application software (word processing, spreadsheet, database, presentation, and e-mail), and the Internet. This course is designed for students with limited or no knowledge of microcomputers and applications. Not open to students who have completed CSS 109 with a grade of C or better.
[CSU; UC]

BUS110. Beg. Keyboarding and Document Formatting (3)
Pass/No Pass Option
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
Introduction to keyboarding and basic techniques using the touch system on the computer as well as basic document processing. Emphasis on speed and accuracy on straight copy and proper formatting procedures in the preparation of business letters, memos, tables, and reports using a word processing program. Not open to students who have completed BUS 110A, 110B, 111, 112, or CIS 149.

BUS110A. Beginning Keyboarding (1)
Pass/No Pass Option
Lec .5 Hrs; Lab 1.5 Hrs
Semesters Offered: Variable
Introduction to keyboarding and basic techniques using the touch system on the computer. Not open to students who have completed BUS 110B, 111, 112, 240, or CIS 149.

BUS110B. Beginning Formatting and Document Processing (2)
Pass/No Pass Option
Advisory: BUS 110A or keyboarding skill using the touch system.
Lec 1.5 Hr; Lab 1.5 Hrs
Semesters Offered: Variable
Basic document processing using the touch system. Emphasis on speed and accuracy on straight copy. Proper formatting procedures in the preparation of business letter, memos, tables, and reports using a word processing program. Not open to students who have completed BUS 110.

BUS111. Intermediate Office Skills (3)
Pass/No Pass Option
Prerequisite: BUS 110 or BUS 110A and BUS 110B. All prerequisites must be completed with a grade of C or better.
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
Continued improvement of keyboarding speed and accuracy by "touch"; continued development of formatting techniques used in business documents (letters, reports, tables, and forms). Emphasis on organizing materials, establishing work priorities, and determining efficient office production procedure and the integration of basic office skills.

BUS112. Advanced Office Skills (3)
Pass/No Pass Option
Prerequisite: BUS 111 with a grade of C or better.
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
Continued development of keyboarding speed and accuracy by "touch". Emphasis on production of appropriately formatted documents, business and financial reports, tables and special projects for legal, medical, and technical business situations using word processing technology. Emphasis on establishing work priorities and determining efficient office procedures through the use of simulated business plan production.

BUS128. Professionalism in the Workplace (2)
Pass/No Pass Option
Lec 2 Hrs
Semesters Offered: Variable
Designed to assist potential employees develop the personal qualifications, interpersonal skills, and values that are in demand in the workplace.

BUS129. Practical Customer Service Skills (2)
Pass/No Pass Only
Lec 2 Hrs
Semesters Offered: Variable
Introduction to customer service skills and their applications as required in the workplace.

BUS130. Fundamentals of Management (3)
Pass/No Pass Option
Lec 3 Hrs
Semesters Offered: Variable
A process-based introduction to the functions of business managers. The course emphasizes practical techniques for business management involving planning, organizing, leading and controlling.

BUS131. Business English (3)
Pass/No Pass Option
Lec 3 Hrs
Semesters Offered: Variable
Study of Standard Business English grammar and application of word usage, proofreading/editing, and punctuation skills as they are used in business writing.

BUS140A. Keyboarding Speed and Accuracy (.5)
Pass/No Pass Option
Advisory: BUS 110A or BUS 110.
Lab 27 Hrs
Semesters Offered: Variable
Emphasizes speed and accuracy improvement on straight-copy material. Students may enroll at any time during the first half of the semester. Students will progress at an individual pace. The course may be repeated three times for credit.

BUS140B. Keyboarding Speed and Accuracy (.5)
Pass/No Pass Option
Advisory: Completion of BUS 140A with a grade of C or better.
Lab 27 Hrs
Semesters Offered: Variable
Emphasis on production of appropriately formatted documents, business and financial reports, tables and special projects for legal, medical, and technical business situations using word processing technology. Emphasis on establishing work priorities and determining efficient office procedures through the use of simulated business plan production.

BUS148.1. Adaptive Computer Keyboarding (1)
Pass/No Pass Only
Lec .5 Hrs; Lab 1.5 Hrs
Semesters Offered: Variable
Introduction to computer keyboarding for students with disabilities using the touch system. Includes adaptive computer solutions and specialized keyboard access for individual student requirements. Formerly BUS 148.

Advisory: Students taking online courses must have basic computer skills for operating Microsoft Word and e-mail, including sending attachments and files. Students also need access to the Internet and must have adequate hardware and software capabilities. Access to computers is also available at the Hartnell College Library/LRC.
BUS148.2. Adaptive Word Processing (1.5)
   Pass/No Pass Only
   Lec 7 Hrs; Lab 2.3 Hrs
   Semesters Offered: Variable
   Development of basic skills in the use of word processing software package for the PC microcomputer. This course emphasizes computer technologies which support a disabled student's ability to access and use microcomputers. Formerly BUS 150.18.

BUS148.3 Adaptive Internet Literacy (1)
   Pass/No Pass Only
   Lec .5 Hrs; Lab 1.5 Hrs
   Semesters Offered: Variable
   Introduction to the network environment, use of the Internet and advanced e-mail features, and user policies and guidelines. Emphasis on assistive and adaptive technology required to access the Internet for students with disabilities.

BUS150.15. Word Processing (3)
   Pass/No Pass Option
   Advisory: Keyboarding speed of 25 words a minute recommended.
   Lec 2 Hrs; Lab 3 Hrs
   Semesters Offered: Variable
   The use of word processing features/commands to create and edit business documents using a computer. Not open to students who have completed BUS/CSS 150.13, BUS/CSS 150.14, BUS/CSS 150A or BUS/CSS 150B.

BUS150.25. Electronic Spreadsheets (3)
   Pass/No Pass Option
   Advisory: Keyboarding speed of 25 words a minute recommended.
   Lec 2 Hrs; Lab 3 Hrs
   Semesters Offered: Variable
   Use of spreadsheet features/commands to create and edit electronic spreadsheets using a computer. Not open to students who have completed CSS 150.25.

BUS151. Business Mathematics (3)
   Pass/No Pass Option
   Lec 3 Hrs
   Semesters Offered: Variable
   Study of the principles of arithmetic and their business applications, including a review of whole numbers, fractions, decimals, and percents. Current business applications in the areas of interest, discounts, markup, and installment credit will be emphasized.

BUS152. Introduction to Accounting (4)
   Pass/No Pass Option
   Lec 3.5 Hrs; Lab 1.5 Hrs
   Semesters Offered: Variable
   This course introduces the basic accounting cycle for a service concern. This is a slow-paced introduction to basic bookkeeping transactions. These transactions are introduced, first in a manual format, and then a review of the basics is accomplished on the computer. This course does not meet the accounting requirement for business transfers.

BUS154. Computerized Accounting – Quick Books (3)
   Pass/No Pass Option
   Prerequisite: BUS 1A or BUS 152. All prerequisites must be completed with a grade of C or better.
   Lec 2 Hrs; Lab 3 Hrs
   Semesters Offered: Variable
   This course provides instruction in computer assisted accounting, including the simulation of the accounting cycle. Topics include general ledger, accountings receivable, accounts payable, transactions and reports, financial statements analysis, depreciation, payroll, and program setup.

BUS159.15A. Word Processing – Module I (1.5)
   Pass/No Pass Only
   Advisory: Keyboarding skill of 25 wpm is recommended for completion of this course.
   Lab 1.5 Hrs
   Semesters Offered: Variable
   Develop basic skills to use word processing software on the microcomputer. Emphasis is placed on creating, editing, saving, printing and basic formatting of documents. This course maybe offered in a self-paced or web-based format. Not open to students who have completed CSS 150.15A.

BUS159.15B. Word Processing – Module II (1.5)
   Pass/No Pass Only
   Prerequisite: BUS 159.15A with a grade of C or better.
   Advisory: Keyboarding skill of 25 words per minute is recommended for successful completion of this course.
   Lab 1.5 Hrs
   Semesters Offered: Variable
   Continuation in the development of basic skills needed to use word processing software. This course may be offered in a self-paced or web-based format. Not open to students who have completed CSS 159.15B.

BUS161. Fundamentals of Marketing (3)
   Pass/No Pass Option
   Lec 3 Hrs
   Semesters Offered: Variable
   Introduces the essential aspects of marketing to build and execute an effective marketing plan. The course covers product management, pricing, distribution/placement, promotion/communications, including the latest marketing trends and technologies, all with a strong customer focus.

BUS164. How to Start, Market, and Finance a Business (3)
   Pass/No Pass Option
   Lec 3 Hrs
   Semesters Offered: Variable
   Focus on how to start, market, and finance a business. Covers environment forces, legal forms of organization, basic accounting, marketing strategies, functions of management, business plan writing, and financing strategies. Co-sponsored by the US Small Business Administration (SBA) and works in partnership with the SBA funded Hartnell College Small Business Development Center (SBDC). Students completing the course will receive a certificate jointly issued by SBDC and the SBA Spanish supported class.

BUS168. Community Leadership Skills (3)
   Pass/No Pass Option
   Lec 3 Hrs
   Semesters Offered: Variable
   A course designed to develop community leadership and management skills in potential community leaders. Students will have an opportunity to interact with community leaders and become knowledgeable about current and future problems and issues facing the community. Course is intended for those students participating in Leadership Salinas Valley.

BUS172. Machine Calculations on the Microcomputer (1)
   Pass/No Pass Option
   Advisory: Completion of BUS 151 (Business Arithmetic) is strongly recommended.
   Lab 3 Hrs
   Semesters Offered: Variable
   Use of the 10-key pad on the microcomputer to develop speed and accuracy by touch and proficiency in solving practical business problems.

BUS172.1. Machine Calculations Skill Building (1)
   Pass/No Pass Option
   Advisory: Completion of BUS 151 (Business Arithmetic) is strongly recommended.
   Lab 1.5 Hrs
   Semesters Offered: Variable
   Use of the 10-key pad on the microcomputer to develop speed and accuracy by touch.

Advisory: Students taking online courses must have basic computer skills for operating Microsoft Word and e-mail, including sending attachments and files. Students also need access to the Internet and must have adequate hardware and software capabilities. Access to computers is also available at the Hartnell College Library/LRC.
BUS172. Machine Calculations Applications (.5)
   Pass/No Pass Option
   Prerequisite: BUS 172.1 with a grade of C or better.
   Advisory: Completion of BUS 151 (Business Arithmetic) is strongly recommended.
   Lab: 1.5 Hrs
   Semesters Offered: Variable
   Use of the 10-key pad on the microcomputer to solve practical business problems.

BUS173. Filing Procedures & Records Management (3)
   Pass/No Pass Option
   Lec: 3 Hrs
   Semesters Offered: Variable
   Introduction to filing procedures and rules; emphasizes principles and practices of effective records management for manual and computerized records systems.

BUS175. Business Communications (3)
   Pass/No Pass Option
   Lec: 3 Hrs
   Semesters Offered: Variable
   Development and adaptation of communication skills in business. Emphasizes listening, speaking and the public relations aspect of business communication. Preparation of business documents, introduction to dictation of business letters, as well as written and oral business presentation.

BUS177. Proofreading & Editing Skills (3)
   Pass/No Pass Option
   Lec: 3 Hrs
   Semesters Offered: Variable
   Proofreading and text editing skill development; with emphasis on proficient use of a reference manual and the development of Standard Business English vocabulary usage.

BUS180. Medical Terminology I (3)
   Lec: 3 Hrs
   Semesters Offered: Variable
   Study of medical vocabulary. Of particular value to those pursuing a career as medical office personnel. Not open to students who have completed HIT-180 with a grade of "C" or better.

BUS186. Medical and Insurance Billing (3)
   Advisory: Successful completion of ENG 101; Students taking this course online are advised that they must have basic computer skills for operating a word processing program, a spreadsheet program and e-mail, including sending attachments and files. Students also need access to the Internet and must have adequate hardware and software capabilities (such as Windows 98/2000/XP, Mac OS 8-10 or their equivalent). Students without off campus access to technology will be able to use the Library Media Center or open Computer Labs to complete their assignments.
   Lec: 3 Hrs
   Semesters Offered: Variable
   The study of managed health care with an emphasis on medical billing and the accurate completion of claims forms for major nationwide medical insurance programs. The importance of the integration of the health system, including federal, state and private medical insurance programs. Not open to students who have completed HIT-186 with a grade of "C" or better.

BUS187. Fundamentals of CPT Coding (3)
   Prerequisite: BUS/HIT-180 with a grade of "C" or better.
   Advisory: ENG-101 with a grade of "C" or better.
   Lec: 3 Hrs
   Semesters Offered: Variable
   An introduction to the CPT (Current Procedural Terminology) manual and in-depth study of the sections contained in the medical code set. Emphasis on body systems in relationship to the CPT codes, along with anatomy, terminology, and procedures; focus on the correct way to code medical procedures. Not open to students who have completed HIT-187 with a grade of "C" or better.

BUS188. Fundamentals of ICD-9-Coding (3)
   Prerequisite: BUS/HIT-180 with a grade of "C" or better.
   Advisory: ENG-101 with a grade of "C" or better.
   Lec: 3 Hrs
   An introduction to the ICD-9-CM Coding (International Classification of Diseases, 9th Revision, Clinical Modification) manual and in-depth study of Volume 1 (Diseases: Tabular List), Volume 2 (Diseases: Alphabetic Index), and Volume 3 (Procedures: Tabular List and Alphabetic Index). Emphasis on the format and content of the volumes and use of the manual to locate codes for diseases and illnesses. Not open to students who have completed HIT-188 with a grade of "C" or better.

BUS189. Advanced Coding Applications (4)
   Prerequisite: BUS/HIT-187 and BUS/HIT-188 with a grade of "C" or better.
   Advisory: BUS/HIT-198 and BIO-18.
   Lec: 4 Hrs
   Semesters Offered: Variable
   Advanced medical coding for addressing more complex issues related to the ICD-9-CM and HCPCS/CPT coding. Focuses on using case studies, mock records, and applying learning at a higher coding skill level. Computerized encoders and groupers emphasized. Not open to students who have completed HIT-189 with a grade of "C" or better.

BUS190. Professional Development and Career Management (2)
   Pass/No Pass Option
   Lec: 2 Hrs
   Semesters Offered: Variable
   Emphasis on career planning, the job application process and documents, job application skills, and career planning.

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BUS191. Time Management in the Work Place (.5)
Pass/No Pass Option
Lec 5 Hrs
Semesters Offered: Variable
Designed to provide students with key skills to effectively and efficiently manage time in the workplace. This course may be offered in the web-based format.

BUS194. Human Relations in Business (3)
Advisory: See below.
Lec 3 Hrs
Semesters Offered: Variable
The study of the behavior of individuals and groups in organizations for the purpose of satisfying both organizational goals and personal goals.

BUS198. Introduction to Health Information Systems Management (3)
Lec 3 Hrs
Semesters Offered: Variable
Introduction to the organization of healthcare delivery and overview of the profession. The study of the regulatory issues, content, use, and structure of health care data and data sets as they relate to long term care facilities, home health agencies, hospices, mental health facilities, ambulatory care, physicians offices and others. Emphasis on standards and development of content, format, evaluation completion, and handling of medical records. Includes numbering and filing systems and methods, registries and indexes, and forms and screen design. Not open to students who have completed HIT-198 with a grade of “C” or better.

BUS200. Computer Skills Acquisition Lab (.25-1)
Pass/No Pass Only
Semesters Offered: Variable
An individualized lab course designed to develop and improve student’s computer skills using a variety of applications. Students will consult with an instructor regarding the scheduling of their hours and the computer skills they wish to acquire and/or improve. Areas of study may include, but are not limited to, basic computer concepts, Windows, word processing, spreadsheets, presentation software, database management, Internet, email, and working with images. This course is an open-entry course. Not open to students who have completed CSS 200.

This picture is of the Hartnell 2009 SIFE (Students In Free Enterprise) Team. Our SIFE team has won the Regional Championship in Hollywood, California three years in a row, and it will be traveling to Philadelphia to compete for the National title. SIFE is not just a student business club, but also a three unit leadership class and all majors are invited to enroll.

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CHM1A. General Chemistry I (5)
Prerequisite: MAT-123 with a grade of "C" or better; and CHM-22 with a grade of "C" or better.
Lec 3 Hrs; Lab 6 Hrs
Semesters Offered: Variable
Basic principles of chemistry: atomic structure, periodic relationships, chemical nomenclature, chemical equations, solutions, stoichiometry, chemical energetics, gas laws, states of matter, acid-base theory, chemical equilibrium, chemical bonding and molecular structure.
[CSU; UC; CSU-GE, AREA B1, B3; IGETC, AREA 5]

CHM1B. General Chemistry II (5)
Prerequisite: Chemistry 1A with a grade of "C" or better.
Lec 3 Hrs; Lab 6 Hrs
Semesters Offered: Variable
A continuation of Chemistry 1A: bonding in organic compounds and coordination compounds; the solution process and solution properties, chemical equilibrium and the application of equilibrium principles to qualitative and quantitative analysis in the laboratory; thermodynamics, reaction rates, oxidation-reduction processes and electrochemistry, nuclear chemistry.
[CSU; UC; CSU-GE, AREA B1, B3; IGETC, AREA 5]

CHM12A. Organic Chemistry I (5)
Prerequisite: Chemistry 1B with a grade of "C" or better.
Lec 3 Hrs; Lab 6 Hrs
Semesters Offered: Variable
First course of a two-course organic chemistry series. Intended for students whose Majors require a full year of organic chemistry (chemistry, chemical engineering, pre-medical, pre-dental, pre-veterinary, pre-pharmacy, and biology Majors). Contents include: a survey of structures, nomenclature, properties, and reactivity of the various functional groups; mechanistic pathways; stereochemistry; spectroscopy; synthesis; biologically important molecules; and selected topics.
[CSU; UC; CSU-GE, AREA B1, B3; IGETC, AREA 5]

CHM12B. Organic Chemistry II (5)
Prerequisite: Chemistry 12A with a grade of "C" or better.
Lec 3 Hrs; Lab 6 Hrs
Semesters Offered: Variable
Second course in a two course organic chemistry series. Intended for students whose Majors require a full year of organic chemistry (chemistry, chemical engineering, pre-medical, pre-dental, pre-veterinary, pre-pharmacy, and biology Majors). Contents include: a survey of structures, nomenclature, properties, and reactivity of the various functional groups; mechanistic pathways; stereochemistry; spectroscopy; synthesis; biologically important molecules; and selected topics.
[CSU; UC; CSU-GE, AREA B1, B3; IGETC, AREA 5]

CHM22. The Science of Chemistry (4)
Prerequisite: MAT-121 Elementary Algebra with a grade of "C" or better.
Lec 4 Hrs; Lab 3 Hrs
Semesters Offered: Variable
A survey of the fundamental concepts of chemistry: measurement; classification of matter, atomic structure, the periodic table, chemical bonding, nomenclature, chemical equations and stoichiometry, gas laws, solutions, reactions in aqueous solution, acid and bases, oxidation-reduction, nuclear chemistry. Designed for students with no prior background in chemistry.
[CSU; UC; CSU-GE, AREA B1, B3; IGETC, AREA 5]

CHM23. Organic and Biological Chemistry for Health Sciences (4)
Prerequisite: Chemistry 22 (with a grade of C or better) or Chemistry 1A (with a grade of C or better) or high school chemistry (with a grade of B or better).
Lec 3 Hrs; Lab 3 Hrs
Semesters Offered: Variable
An in-depth study of the principles of organic and biological chemistry related to the health science field. Appropriate for most baccalaureate programs in nursing, dental hygiene, physical therapy, physical education, and health sciences generally. Does not meet chemistry requirement for premedicne or predentistry majors.
[CSU; CSU-GE, AREA B1, B3; IGETC, AREA 5]

CHM45. Special Projects (1-3)
Semesters Offered: Variable
Special projects in chemistry. The student will engage in the study of a special topic of mutual interest to both the instructor and the student. Study may consist of either library research or laboratory work or a combination of both.
[CSU]

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CSS2A. Object Oriented Programming (4)
Pass/No Pass Option
Prerequisite: CSS 1 with a grade of C or better.
Advisory: See Below.
Lec 3 Hrs; Lab 3 Hrs
Semesters Offered: Variable
An introduction to the concepts of object-oriented programming to students with a background in the procedural paradigm. Topics include classes, inheritance, polymorphism, algorithms, searching, sorting and software engineering. Appropriate for computer science and computer engineering majors. Not open to students with credit for CIS 1.
[CSU; UC]

CSS2B. Data Structures & Algorithms (4)
Pass/No Pass Option
Prerequisite: CSS 2A with a grade of C or better.
Advisory: See Below.
Lec 3 Hrs; Lab 3 Hrs
Semesters Offered: Variable
An introduction to the fundamental concepts of data structures and the algorithms that proceed from them. Topics include recursion, the underlying philosophy of object-oriented programming, fundamental data structures (including stacks, queues, linked lists, hash tables, trees and graphs), the basics of algorithmic analysis.
[CSU; UC]

CSS3. Computer Architecture and Assembly Language Programming (4)
Prerequisite: CSS 1 with a grade of C or better.
Semesters Offered: Variable
Introduces students to the organization and architecture of computer systems, and assembly language programming. Includes study and application of: (a) Digital logic: Fundamental building blocks (logic gates, flip-flops, counters, registers, PLA); logic expressions (b) Data representation: Bits, bytes, and words; numeric data representation and number bases; fixed- and floating-point systems; signed and two-complement representations, (c) Assembly level organization: control unit; instruction fetch, decode, and execution; instruction sets and types (data manipulation, control, I/O); assembly/machine language programming. Appropriate for computer science and computer engineering majors. (This course is equivalent to the Association of Computing Machinery CS101 Programming Fundamentals course. The first course in a three course programming sequence.) Formerly CIS-5.
[CSU; UC]

CSS4. Introduction to Scientific and Engineering Programming (4)
Prerequisite: Math 2 or 3A. All prerequisites must be completed with a grade of C or better.
Lec 3 Hrs; Lab 3 Hrs
Semesters Offered: Variable
Essentials of programming a digital computer for science, engineering, and mathematical applications. The student has the opportunity for extensive programming experience in numerical programming, statistical programming, matrices, and numerical approximation. In general, CSS-4 is designed as the fundamental programming course for transfer students in science, mathematics, and engineering. Lab work, in addition to regularly scheduled lab hours, may be necessary. Formerly CIS-10.
[CSU; UC]

CSS5. Programming in Visual Basic (4)
Pass/No Pass Option
Advisory: See Below.
Lec 3 Hrs; Lab 3 Hrs
Semesters Offered: Variable
A comprehensive programming course that emphasizes the design, coding and debugging of programs written in Visual Basic. Topics include programming style, Windows programming, expressions and assignment statements, control constructs and file processing. Emphasis is on Windows Programming using event-driven programming requiring the use of forms, menus, scroll bars, buttons and boxes. Formerly CIS-101.
[CSU]

CSS6. Systems Analysis and Design (4)
Pass/No Pass Option
Prerequisite: CSS 43 with a grade of C or better.
Advisory: See Below.
Lec 3 Hrs; Lab 3 Hrs
Semesters Offered: Variable
Analysis and design of business computer information systems, including case studies and class projects using a variety of software and research tools. Not open to students who have completed CIS 14.
[CSU; UC]

CSS12. Introduction to E-Commerce (4)
Advisory: Successful completion of CSS 43 (previously CIS 11), CSS/LBT 90 (previously CIS 90), or BUS/CSS 109 (previously CIS 109). See below.
Lec 3 Hrs; Lab 3 Hrs
Semesters Offered: Variable
Introduction to key issues and strategies for e-commerce planning. Includes examining the concepts and types of e-commerce, examining methods for effective e-commerce solutions, describing the e-commerce development process, creating a business case for an e-commerce solution, specifying functional requirements for an e-commerce solution, specifying technical requirements for an e-commerce solution managing online content, and key issues in designing for international audiences.
[CSU]

CSS25. Multimedia Integration (3)
Pass/No Pass Option
Advisory: See Below.
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
A focus will be placed on the history and influence of learning through the use of multiple-applications. Basic concepts such as text, audio, video, and user interface will be examined. Technical and design ideas will be examined for use in diverse learning situations. Students will develop the appropriate skill necessary to integrate multiple applications into learning presentations, on line design and learning through multimedia.
[CSU]
CSS27. Digital Project Management and Content Development (4)
Pass/No Pass Option
Advisory: See Below.
Lec 3 Hrs; Lab 3 Hrs
Semesters Offered: Variable
This course will give students a hands-on approach to working with clients that need digital projects designed and developed. Students will learn to work collaboratively with peers from the beginning of a project to the final client sign-off of a project. Students will be involved in a step-by-step process that starts with defining learning styles, project planning, storyboards, and modification of existing projects, timeline creation, communication strategies, client relationships and project maintenance.
[CSU]

CSS29. Programming for Multimedia (3)
Pass/No Pass Option
Advisory: See Below.
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
The course will introduce students to programming for multimedia. A brief history of programming and its uses in today's society will be discussed. Students will learn the basic concepts and components of programming for multimedia using scripting language. Technical and design ideas will be examined for each component of multimedia design. Students will develop the appropriate skills necessary to integrate programming into multimedia projects. Technical and design ideas will be examined for each component of multimedia programming, focusing on CSS, javascripting, and action-scripting.
[CSU]

CSS31. Database Management (4)
Pass/No Pass Option
Advisory: See Below.
Lec 3 Hrs; Lab 3 Hrs
Semesters Offered: Variable
Introduces the fundamental concepts of database management. Topics include the database environment, development, entity-relationship model, business rules, object-oriented modeling, logical database design, physical database design, client/server and middleware, SQL, database access, distributed databases, administration and warehousing. Hand-on experiences with a full range of database topics demonstrate practical use of databases. Formerly CIS 105.
[CSU]

CSS32. SQL and PL/SQL Programming (4)
Pass/No Pass Option
Advisory: See Below.
Lec 3 Hrs; Lab 3 Hrs
Semesters Offered: Variable
A comprehensive study of SQL and PL/SQL. Topics include: selecting, restricting and sorting data, functions, subqueries, creating objects, procedures, packages and triggers. Course is taught using Oracle database software.
[CSU]

CSS33A. Database Architecture and Administration (4)
Pass/No Pass Option
Prerequisite: CSS 32 with a grade of C or better.
Advisory: See Below.
Lec 3 Hrs; Lab 3 Hrs
Semesters Offered: Variable
A comprehensive study of the architecture and administration of database systems. Topics include startup and shutdown of a database, database creation, file and database storage, and managing users and their privileges. Course is taught using Oracle database software.
[CSU]

CSS33B. Database Maintenance (4)
Pass/No Pass Option
Prerequisite: CSS 33A with a grade of C or better.
Advisory: See Below.
Lec 3 Hrs; Lab 3 Hrs
Semesters Offered: Variable
A comprehensive study of the maintenance of database systems. Topics include database backup, recovery strategies and performance tuning issues and techniques. Course is taught using Oracle database software.
[CSU]

CSS334. Database Forms and Reports (4)
Pass/No Pass Option
Prerequisite: CSS 32 with a grade of C or better.
Advisory: See Below.
Lec 3 Hrs; Lab 3 Hrs
Semesters Offered: Variable
A comprehensive study of the maintenance of database systems. Topics include database backup, recovery strategies and performance tuning issues and techniques. Course is taught using Oracle database software.
[CSU]

CSS41. Operating Systems (4)
Advisory: See Below.
Lec 3 Hrs; Lab 3 Hrs
Semesters Offered: Variable
Basic concepts of operating systems and system programming. Processes and inter-process communication/ synchronization. Virtual memory, program loading and linking, File and I/O subsystems. Utility programs. Hands-on exercises with Windows, UNIX, Linux and Mac OS. Not open to students with credit for CIS-106.
[CSU; UC]

CSS43. Computer Systems and Information Literacy (4)
Pass/No Pass Option
Advisory: See Below.
Lec 3 Hrs; Lab 3 Hrs
Semesters Offered: Variable
An overview of the computer information systems, languages, computer applications and the role of computers in the evolution of an information-based society. Topics include computer terminology, application programs, email, networks, word processing, presentations, software, the Internet, using and evaluating information from electronic sources and conducting library research online. Formerly CIS-11. Not open to students with credit for CIS-48, BUS-48, BUS-39.009, or CIS-39.009. This course may be offered in a web-based format.
[CSU; UC]

CSS45. Applied Projects (1-3)
Pass/No Pass Option
Prerequisite: Any CSS course with a grade of C or better.
Semesters Offered: Variable
Individual investigation of topics and problems beyond the scope of regular Computer Science and Information Systems courses.
[CSU]

CSS60A. 2-D Game Development (4)
Pass/No Pass Option
Lec 3 Hrs; Lab 3 Hr
Semesters Offered: Variable
An introduction to 2-dimensional computer game design. Topics include criticism, analysis and history of 2-D games, games and society, principles and methodologies behind the rules and play of games, visual and audio design, programming concepts, interactive storytelling and game production. Course contents follow the IDGA Curriculum Framework.
[CSU]

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CSS 123. Network Security Principles (4)
Lec 3; Lab 3
Semesters Offered: Variable
Provides an in-depth exploration of the essentials of computer network security. Analyze security objectives and the role of policy deployment while defending against network attacks. Covers attacks and malware, E-mail, web components, software development, disaster recovery, risk, change and privilege management, forensics and legal issues. Scenario-based curriculum describing a start-up company in which the students are employed with specific roles will also be incorporated in the class. Coverage of both CompTIA’s Security+ certification exam and the (ISC)² SSCP certification, is integral to this course.
[CSU]

CSS126. Dreamweaver (4)
Pass/No Pass Option
Lec 3; Lab 3
Semesters Offered: Variable
A focus on the student’s use of Dreamweaver, web authoring, and its accompanying components to construct complex web projects and its versatile uses for the Internet. Subjects to be covered are web site design, content creation, editing and maintaining websites as well as, Java scripting, basic chat rooms, bulletin board, guest books, and other complex components of Dreamweaver and web authoring.
[CSU]

CSS127. Flash Design (4)
Pass/No Pass Option
Lec 3; Lab 3
Semesters Offered: Variable
A focus on the creation of Flash websites, movies and multimedia. The course will focus on the skills necessary for the effective use of Flash. Subjects to be covered are vector-based graphics, interactivity design, and basic animation techniques, audio and video, interactive media, action scripting, and movies and other complex ideas using Flash.
[CSU]

CSS148.1 Adaptive Computer Keyboarding (1)
Pass/No Pass Only
Lec .5 Hrs; Lab 1.5 Hrs
Semesters Offered: Variable
Introduction to computer keyboarding for students with disabilities using the touch system. Includes adaptive computer solutions and specialized keyboard access for individual student requirements. Formerly CSS 148.

CSS148.2. Adaptive Word Processing (1.5)
Pass/No Pass Only
Lec .7 Hrs; Lab 2.3 Hrs
Semesters Offered: Variable
Development of basic skills in the use of word processing software package for the PC microcomputer. This course emphasizes computer technologies which support a disabled student’s ability to access and use microcomputers. Formerly CSS 150.18.

CSS148.3 Adaptive Internet Literacy (1)
Pass/No Pass Only
Lec .5 Hrs; Lab 1.5 Hrs
Semesters Offered: Variable
Introduction to the network environment, use of the Internet and advanced e-mail features, and user policies and guidelines. Emphasis on assistive and adaptive technology required to access the Internet for students with disabilities.

CSS150.15. Word Processing (3)
Pass/No Pass Option
Advisory: Keyboarding speed of 25 words a minute recommended.
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
The use of word processing features/commands to create and edit business documents using a computer. Not open to students who have completed BUS 150.13, BUS 150.14, BUS 150A or BUS 150B.

CSS150.15A. Word Processing Level I (1.5)
Pass/No Pass Option
Advisory: Recommended minimum keyboarding skill of 30 wpm for 5 minutes with 5 or fewer errors.
Lec 1 Hr; Lab 1.5 Hrs
Semesters Offered: Variable
Introduction to the use of basic word processing features/commands to create and edit business documents using a computer. Not open to students who have completed BUS/CSS 150.15B or BUS/CSS 150.15.

CSS150.15B. Word Processing – Level II (1.5)
Pass/No Pass Option
Prerequisite: CSS 150.15A with a grade of C or better.
Advisory: Recommended keyboarding skill of 30 words per minute is recommended for successful completion of this course.
Lec 1.5 Hrs
Semesters Offered: Variable
Continuation in the development of basic skills needed to use word processing software. This course may be offered in a self-paced or web-based format. Not open to students who have completed BUS 159.15B.

CSS159.15A. Word Processing – Module I (.5)
Pass/No Pass Only
Prerequisite: CSS 159.15A with a grade of C or better.
Advisory: Keyboarding skill of 25 words per minute is recommended for successful completion of this course.
Lab 1.5 Hrs
Semesters Offered: Variable
Develop basic skills to use word processing software on the microcomputer. Emphasis is placed on creating, editing, saving, printing and basic formatting of documents. This course can be offered in a self-paced or web-based format. Not open to students who have completed BUS 159.15A.

CSS159.15B. Word Processing – Module II (.5)
Pass/No Pass Only
Prerequisite: CSS 159.15A with a grade of C or better.
Advisory: Keyboarding skill of 25 words per minute is recommended for successful completion of this course.
Lect 1.5 Hrs
Lab 1.5 Hrs
Semesters Offered: Variable
An introduction and hands-on approach to the concepts and practices of how to install, set-up and maintain a computer system. Topics covered include hardware, software, procedures, components and configuration for newly constructed and repaired computer systems.

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CON50. Residential Construction: Rough Frame (6)
Pass/No Pass Option
Lec 2 Hrs; Lab 12 Hrs
Semesters Offered: Variable
This course covers the first phase of the construction of a residential structure with emphasis placed on rough carpentry. Students will actually be involved in the construction of a house beginning with the layout of the building, forming for a foundation, floor, wall and roof framing, concluding with the installation of the roofing material. [CSU]

CON50A. Residential Construction: Building Layout (2)
Pass/No Pass Option
Lec 75 Hr; Lab 4 Hrs
Semesters Offered: Variable
This course is a sub-set of CON 50 and covers the first third of the rough carpentry class. Students will actually be involved in the construction of a house beginning with the layout of the building foundation through the framing of the floor structure. [CSU]

CON50B. Residential Construction: Wall & Stair (2)
Pass/No Pass Option
Lec 75 Hrs; Lab 4 Hrs
Semesters Offered: Variable
This course is a sub-set of CON 50 and covers the second third of the rough carpentry class. Students will actually be involved in the construction of a house beginning with the layout and framing of the walls through stair construction. [CSU]

CON50C. Residential Construction: Roof Frame (2)
Pass/No Pass Option
Lec 75 Hr; Lab 4 Hrs
Semesters Offered: Variable
This course is a sub-set of CON 50 and covers the final third of the rough carpentry class. Students will actually be involved in the construction of a house beginning with the layout and framing of the roof frame through installation of the roofing material. [CSU]

CON51. Residential Construction: Finish Work (6)
Pass/No Pass Option
Lec 2 Hrs; Lab 12 Hrs
Semesters Offered: Variable
This course covers the finish phase for the construction of a residential structure with emphasis placed on finish carpentry. Students will actually be involved in the completion of the construction of a house from the exterior wall covering, insulation, interior wall covering and finish carpentry trades of building. [CSU]

CON51A. Residential Construction: Exterior Work (2)
Pass/No Pass Option
Lec 7 Hr; Lab 4 Hrs
Semesters Offered: Variable
This course is a sub-set of CON 51 and covers the first third of the CON 51 Finish Work class. Students will actually be involved in the construction of a house primarily dealing with the exterior shell of the structure. [CSU]

CON51B. Residential Construction: Interior Work (2)
Pass/No Pass Option
Lec .7 Hr; Lab 4 Hrs
Semesters Offered: Variable
This course is a sub-set of CON 51 and covers the second third of the CON 51 Finish Work class. Students will actually be involved in the construction of a house beginning with the interior wall finish, painting and finish carpentry work. [CSU]

CON51C. Residential Construction: Project End (2)
Pass/No Pass Option
Lec .7 Hr; Lab 4 Hrs
Semesters Offered: Variable
This course is a sub-set of CON 51 and covers the final third of the CON 51 Finish Work class. Students will actually be involved in the construction of a house beginning with cabinet installation, counter tops, finish hardware and finish floor coverings. [CSU]

CON54. Concrete Construction (3)
Pass/No Pass Option
Lec 1 Hr; Lab 6 Hrs
Semesters Offered: Variable
This course exposes the student to fundamental elements of the concrete industry. Topics covered in the class include building layout, grading, setting and reinforcing forms, concrete reinforcing, concrete mixes, and the tools used in the concrete industry. Students are required to participate in lab work which will include setting forms, placing, finishing and curing concrete. [CSU]

CON55. Masonry Construction (3)
Pass/No Pass Option
Lec 1 Hr; Lab 6 Hrs
Semesters Offered: Variable
This course exposes the student to fundamental elements of the masonry industry. Topics covered in the class include building layout, grading, review of concrete, masonry units, mortar, masonry anchors and reinforcing, and laying various types of masonry materials. Students are required to participate in lab work which will include pouring concrete foundations, mixing mortar and laying various types of masonry units. [CSU]

CON61. Construction Management (3)
Pass/No Pass Option
Lec 3 Hrs
Semesters Offered: Variable
This course is a study of the managerial problems and policy decisions facing typical general building contractors. Numerous aspects of construction contracting will be covered including bonding, insurance, company organizational structure and business plans and project planning. Also covered in the course will be construction safety, labor relations and business methods and financing. [CSU]

CON62. Construction Law and Contracts (3)
Pass/No Pass Option
Lec 3 Hrs
Semesters Offered: Variable
This course is a study of the legal aspects of the construction industry. Students will analyze the problems relating to contract formation, administration, interpretation and enforcement. Students will also learn about California Contractor's License Law and licensing requirements, mechanics lien laws, stop notices, attachment and collection techniques, an overview of building codes and a comparison of arbitration and litigation. [CSU]

CON63. Construction Estimating (3)
Pass/No Pass Option
Lec 3 Hrs
Semesters Offered: Variable
This course is a hands on study of the basic approaches to estimating for numerous types of construction projects. Students will study bid documents, procedures and preparations required for both public and private works. Students will be required to perform material and labor take-offs from architectural prints, price the material and labor and put together a bid package. Basic analysis of plans, specifications and front end documents are part of the curriculum. [CSU]

CON64. Construction Scheduling (3)
Pass/No Pass Option
Lec 3 Hrs
Semesters Offered: Variable
This course is a study of the techniques used in the planning, scheduling and controlling of construction projects. Students will study critical path scheduling, bar charts, activity time assessments, construction project logic, monitoring and updating techniques for actual construction projects. Students will also compare manual scheduling procedures to computer methods. [CSU]

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CON70. Residential Plumbing (3)  
**Pass/No Pass Option**  
**Lec 2 Hrs; Lab 3 Hrs**  
**Semesters Offered:** Variable  
This course is a study of plumbing techniques and practices used in residential construction. This course will stress safety, use of the tools of the trade, pipes and fittings, cutting and joining of pipes, fresh water and drain waster vent systems. Students will also study plumbing system components, waste disposal systems and plumbing fixtures.  
[CSU]

CON71. Residential Electrical (3)  
**Pass/No Pass Option**  
**Lec 2 Hrs; Lab 3 Hrs**  
**Semesters Offered:** Variable  
This course is a study of electrical techniques and practices used in residential construction. This course will stress safety, use of tools of the trade, principles of electricity and basic electrical circuits. Students will further study electrical conductors, grounding techniques, wiring practices and layout. Further included will be electrical codes and licenses, lighting systems and finish electrical techniques.  
[CSU]

CON74. Construction Print Reading (3)  
**Pass/No Pass Option**  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
This course covers the fundamentals of: the construction plan development process as well as interpreting and understanding the plans and the symbols used on plans for the building industry. The course will further cover construction specifications, construction materials and welding prints and print reading.  
[CSU]

CON81. Introduction to the Uniform Building Code (3)  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
Use and application of the Uniform Building Code as it applies to the building inspector. This course will require students to work with and study the latest version of the Uniform Building Code. Students will also learn inspection techniques and protocol, public relations and record keeping. Designed for contractors, architects, tradespersons and those seeking ICBO certification. Course may be repeated by petition as codes are updated.  
[CSU]

CON82. Introduction to the Uniform Mechanical Code (3)  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
Use and application of the Uniform Mechanical Code as it applies to the building inspector. This course will require students to work with and study the latest version of the Uniform Mechanical Code. Students will also learn inspection techniques and protocol, public relations and record keeping. Designed for contractors, architects, tradespersons and those seeking ICBO certification. Course may be repeated by petition as codes are updated.  
[CSU]

CON83. Introduction to the Uniform Plumbing Code (3)  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
Use and application of the Uniform Plumbing Code as it applies to the building inspector. This course will require students to work with and study the latest version of the Uniform Plumbing Code. Students will also learn inspection techniques and protocol, public relations and record keeping. Designed for contractors, architects, tradespersons and those seeking ICBO certification. Course may be repeated by petition as codes are updated.  
[CSU]

CON84. Introduction to the National Electrical Code (3)  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
Use and application of the National Electrical Code as it applied to the building inspector. This course will require students to work with and study the latest version of the National Electrical Code. Students will also learn inspection techniques and protocol, public relations and record keeping. Designed for contractors, architects, tradespersons and those seeking ICBO certification. Course may be repeated by petition as codes are updated.  
[CSU]

CON101. Introduction to Construction (2)  
**Pass/No Pass Option**  
**Lec 2 Hrs**  
**Semesters Offered:** Variable  
This course is a study of the fundamentals of the construction industry. Students will be introduced to numerous aspects of the residential construction process including numerous construction trades and personnel, methods of construction, materials used in modern construction and the manner in which these materials are tested.

CON102. Carpentry Skills (4)  
**Pass/No Pass Option**  
**Prerequisite:** CON 51 with a grade of C or better.  
**Lab 12 Hrs**  
**Semesters Offered:** Variable  
Allows the second year construction student the opportunity to further improve and enhance his/her skill in rough and finish carpentry techniques. May be repeated twice for credit.

CON110. Carpentry - Floor and Wall (3)  
**Pass/No Pass Option**  
**Lec 2 Hrs; Lab 3 Hrs**  
**Semesters Offered:** Variable  
This course is a study of fundamental rough carpentry skills and techniques dealing specifically with residential floor and wall framing. Students will learn about construction safety, types and uses of carpentry tools, framing terminology, techniques for framing a raised foundation and the building and bracing of light wood framed walls.

CON111. Carpentry - Roof and Stairs (3)  
**Pass/No Pass Option**  
**Lec 2 Hrs; Lab 3 Hrs**  
**Semesters Offered:** Variable  
This course is a study of fundamental rough carpentry skills and techniques dealing specifically with residential roof and stair framing. Students will learn about construction safety, types and uses of carpentry tools, framing terminology, techniques for calculating and cutting elementary roof structures and simple sets of stairs.

CON121. Construction Fundamentals (5.5)  
**Pass/No Pass Option**  
**Lec 5 Hrs; Lab 1.5 Hrs**  
**Semesters Offered:** Variable  
Builds a fundamental skill set for any individual pursuing a career in the construction industry, to include disciplines such as: residential, commercial, industrial, construction management, estimating, safety, quality and material management. Prepares the student to pass the NCCER (The National Center for Construction Education and Research) competency test for this level of instruction.

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CON122. Carpentry Fundamentals (7.5)
Pass/No Pass Option
Lec 5 Hrs; Lab 7.5 Hrs
Semesters Offered: Variable
Provides a fundamental understanding of the basic materials and processes that comprise the initial steps of a construction project. This skill set is applicable to any individual pursuing a career in the construction industry, including disciplines such as residential, commercial, industrial, construction management, estimating, safety, quality and material management. Prepares the student to pass the NCCER (The National Center for Construction Education and Research) competency test for this level of instruction.

CON123. Commercial and Residential Carpentry Framing and Finishing (9)
Prerequisite: CON-122 with a grade of "C" or better.
Pass/No Pass Option
Lec 6 Hrs; Lab 9 Hrs
Semesters Offered: Variable
Provides a thorough understanding of "state-of-the-art" materials and processes required for the final finish work on residential and commercial buildings. Laboratory exercises develop skills to successfully install or apply those products. Prepares the student to pass the NCCER (The National Center for Construction Education and Research) competency test for this level of instruction.

CON145. Special Projects (.5-2)
Semesters Offered: Variable
This course is designed to allow students to study a specialized area of construction or to develop further knowledge in an area that they have already studied in Construction. Such areas could include computer applications, management techniques, new or special materials and new methods or construction processes. Completion of CON 50 and CON 51 is highly recommended.

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CO-OP99. Occupational Cooperative Work Experience Education

**Pass/No Pass Option**
1.0-4.0 Parallel Plan
1.0-8.0 Alternate Plan
60 hours of volunteer experience is required for 1.0 unit of credit
75 hours of paid experience is required for 1.0 unit of credit.

**Semesters Offered:** Variable

Designed for students employed or volunteering to assist them in the development of skills and responsibilities related to the work environment. Structured objectives are developed and agreed upon by the student, college instructor, and employer. Students are eligible to earn 1 unit for 60 hours of volunteer work or 75 hours of paid work. A maximum of three credit hours per semester may be earned up to a total of six credit hours in the Parallel Plan. A maximum of six semester hours may be earned in the Alternate Plan.

[CSU]

CWE99. General Cooperative Work Experience Education

**Pass/No Pass Option**
1.0-4.0 Parallel Plan
1.0-8.0 Alternate Plan
60 hours of volunteer experience is required for 1.0 unit of credit
75 hours of paid experience is required for 1.0 unit of credit.

**Semesters Offered:** Variable

Designed for students employed or volunteering to assist them in the development of skills and responsibilities related to the work environment. Structured objectives are developed and agreed upon by the student, college instructor, and employer. Students are eligible to earn 1 unit for 60 hours of volunteer work or 75 hours of paid work. A maximum of three credit hours per semester may be earned up to a total of six credit hours in the Parallel Plan. A maximum of six semester hours may be earned in the Alternate Plan.

[CSU]

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COU21. Student Skills for Success: Orientation (3)  
**Pass/No Pass Option**  
**Seminesters Offered:** Variable  
An introduction to college, which provides new students with a better understanding of the college environment. Topics include: Hartnell College campus and community resources and services, learning strategies and educational planning. Students will have a better understanding of general education requirements, college policies, registration procedures, Certificate or Associate’s degree requirements and university transfer. (Students returning after a break in enrollment may petition to repeat this course)  
[CSU]

COU23. Student Skills for Success:  
Career Development (3)  
**Pass/No Pass Option**  
**Seminesters Offered:** Variable  
Designed to assist students create and implement a plan for optimal career and personal development. Students will create a personal and career profile by assessing interests, aptitudes, skills, values, personality, and life and personal circumstances; as well as develop educational options and pathways that occur during a typical life span.  
[CSU; CSU-GE, AREA E]

COU24. Student Skills for Success:  
Group Dynamics (1)  
**Pass/No Pass Option**  
**Seminesters Offered:** Variable  
Course designed to assist students develop understanding of the individual in a group setting and to understand group dynamics. Students will learn how to effectively participate in groups in a variety of settings. Students will comprehend structure of groups; roles and functions; importance of cultural perspective; and reflect on individual responsibility.  
[CSU]

COU25. Assertiveness (1)  
**Pass/No Pass Option**  
**Seminesters Offered:** Variable  
Principles of assertive behavior and examples of skill application in personal, social, academic and work situations. Designed for students who desire to improve their personal power, communication skills, and interpersonal effectiveness.  
[CSU]

COU26. Student Skills for Success:  
Learning Strategies (3)  
**Pass/No Pass Option**  
**Seminesters Offered:** Variable  
This comprehensive course enables students to successfully navigate higher education through personal growth, problem solving, learning strategies, and study skills improvement. An in-depth exploration and application of study skill theories and topics to include: memory development, time management strategies, approaches to effective reading, note taking, test taking strategies, effective college study habits, successful use of campus resources and services, and healthy lifestyle maintenance. Designed to assist students in developing study skills and learning strategies necessary to improve their educational aptitudes and behaviors through personal growth.  
[CSU; UC]

COU27. Life Planning (3)  
**Pass/No Pass Option**  
**Seminesters Offered:** Variable  
Key life issues and questions will be investigated and evaluated to create a life span. Action steps will be identified and selected to enable students to be better equipped to select a college major and understand the importance of relationships and develop an appreciation of divergent cultural views.  
[CSU; CSU-GE, AREA E]

COU28. Peer Advisor Training (2)  
**Pass/No Pass Option**  
**Seminesters Offered:** Variable  
Prepares students to become successful Peer Advisors through five core elements: Communication Skills, Leadership, Decision-Making, Human Diversity and Assertiveness Skills. Peer Advising theory and practice, information dissemination methods, campus and community referrals, advising and para-professional counseling skills will be covered. Students will develop skills, techniques, and strategies as they prepare to become peer advisors in the diverse multicultural educational environment of a community college.  
[CSU]

COU29. Student Skills for Success:  
Job Hunting Techniques (.3-.5)  
**Pass/No Pass Only**  
**Seminesters Offered:** Variable  
Designed to assist students develop critical job finding competencies. Students will learn how to search for a job effectively by assessing and defining their marketable skills and communicating their skills to employers through applications, resumes and oral interviews. Course content includes employment preparation & organizational activities: completing applications; creating cover letters and resumes. Students will practice networking techniques and cold calls. Other areas include labor market development and interview practice. This course may be scheduled in a regular lecture format or a self-paced format.  
[CSU]

COU30. Career Interest and  
Ability Assessment (1)  
**Pass/No Pass Only**  
**Seminesters Offered:** Variable  
An exploration of personal interests, aptitudes, experiences and values to assist students in their individual career decision-making process. Appropriate for students seeking to determine a major as well as adults in career transitions. This course may be scheduled in a lecture format or self-paced format.  
[CSU]

COU35. Intercultural Communication (3)  
**Seminesters Offered:** Variable  
Study of intercultural communication among people in the United States such as Mexican-American, Hispanic, Native American, Asian American, and African American and in cultures throughout the world such as India, Japan, Europe, Africa, North Central and South America. Analysis of the influence of cultural patterns, language, values, norms, beliefs, and roles on world views and behavior. Special study of prejudice, ethnocentrism, nationalism, and racism in intercultural communication. Includes development of intercultural communication competence. Not open to students who have completed Speech 35.  
[CSU; UC; CSU-GE, AREA D7, IGETC, AREA 4]

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COUNSELING

COU38. Student Leadership in Higher Education (2.0)
Pass/No Pass Option
Semesters Offered: Variable
Designed to prepare students for effective leadership roles on campus and in future organizational structures. Student government members, general club members, and any student interested in gaining valuable leadership skills will benefit.
[CSU]

COU45. Special Projects (.5-3)
Pass/No Pass Option
Advisory: Students must have basic computer skills for operating Microsoft Word and e-mail, including sending attachments and files. Students also need access to the Internet and must have adequate hardware and software capabilities. Access to computers is also available at the Hartnell College Library/LRC.
Semesters Offered: Variable
Designed for students who are interested in investigating topics beyond the scope of a regular counseling course. Students will gain hands-on experience in advanced counseling topics. This course may be taken three times with different or advanced content for a maximum of nine units.
[CSU]

COU80. American Sign Language I (3)
Pass/No Pass Option
Lec 3 Hrs
Semesters Offered: Variable
[CSU; UC; IGETC AREA 6]

COU81. American Sign Language II (3)
Pass/No Pass Option
Prerequisite: Counseling 80 or with a grade of "C" or better.
Lec 3 Hrs
Semesters Offered: Variable
Continuation of Counseling 80. Drills and exercises at the intermediate level of sign language structure, form, usages, and conversation. Designed to give additional practice in the use of American Sign Language (ASL). Continued exploration and understanding of Deaf history and culture.
[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 6]

COU83. American Sign Language III (3)
Pass/No Pass Option
Prerequisite: Completion of Counseling 81 with a grade of C or better.
Lec 3 Hrs
Semesters Offered: Variable
Intermediate to advanced level syntax, grammar, history, and vocabulary of American Sign Language, the language of the Deaf community. Emphasis on increasing proficiency in conversational situations. Increasing understanding of Deaf culture and its influence on language structures, conversation, context and usage. Special emphasis on oral presentation.
[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 6]

COU90. Memory Skills (1)
Pass/No Pass Only
Lec 1 Hr
Semesters Offered: Variable
Basic principles of memory improvement with an emphasis on brain functions in relation to memory and applied memory methods. Designed for students with identified memory and concentration deficits, learning disabilities, and other learning challenges. Application to college coursework, study skills, test taking as well personal and social situations.
[CSU]

COU105. Emotional Management Skills: (1.5)
Pass/No Pass Only
Lec 1.5 Hrs
Semesters Offered: Variable
Introduction to specific behavioral approaches designed to identify and manage negative feelings. Positive peer support and self-talk skills designed to help students manage life-disrupting problems, emotions, and events. Designed for students with ongoing and identified behavioral and emotional challenges. Not open to students who have completed LSK 105.

COU123. Student Skills for Success:
Career/Internship Preparation (1)
Pass/No Pass Only
Lec 1 Hr
Semesters Offered: Variable
Designed to assist students in preparation for internships and careers. Students will learn proper career preparation tools including resume writing, interview skills, personal statements, and educational planning.

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COUNSELING – LEARNING SKILLS

LSK90. Memory Skills (1)
Pass/No Pass Only
Lec 1 Hr
Semesters Offered: Variable
Basic principles of memory improvement with an emphasis on brain functions in relation to memory and applied memory methods. Designed for students with identified memory and concentration deficits, learning disabilities, and other learning challenges. Application to college coursework, study skills, test taking as well personal and social situations. Not open to students who have taken COU 90 with a grade of "CR." [CSU]

LSK105. Emotional Management Skills (1.5)
Pass/No Pass Only
Lec 1 Hr
Semesters Offered: Variable
Introduction to specific behavioral approaches designed to identify and manage negative feelings. Positive peer support and self-talk skills designed to help students manage life-disrupting problems, emotions, and events. Designed for students with ongoing and identified behavioral and emotional challenges. Not open to students who have completed COU 105 with a grade of "CR."

LSK126. Learning Strategies (1.5)
Pass/No Pass Only
Lec 1.5 Hr
Semesters Offered: Variable
Assists students with disabilities to succeed in college through a better understanding of their own individual learning styles, aptitudes, and behaviors. Students gain exposure to a variety of “best practice” study skills to succeed in college. Identification and analysis of individual learning barriers such as learning disabilities, emotional management, or physical challenges.

LSK129. Job Search Strategies (.3-.5)
Pass/No Pass Only
Designed to assist students with disabilities to develop critical job readiness competencies. Students will learn how to search for a job effectively by assessing and defining their marketable skills and communicating their skills to employers through applications, resumes and oral interviews. Emphasis on identification and analysis of individual employment barriers and personal development needs. This course may be scheduled in a regular lecture format or self-paced format.

LSK210. Learning Skills Assessment (.3-.5)
Pass/No Pass Only
Intensive learning skills assessment for students with possible learning disabilities including dyslexia through self appraisal and diagnostic evaluation. Strengths and weaknesses in basic skills as well as learning modalities will be assessed.

LSK211. Learning Skills Lab (.5)
Pass/No Pass Only
Designed to provide students with identified learning disabilities or other educational learning challenges and limitations individualized, computer assisted and small group instruction. Application and study of assistive technology, accommodation strategies, and use of supportive learning services. Formerly COU 211.

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DAN1. Ballet I (1.5)  
**Lec** 1 Hr; **Lab** 3 Hrs  
**Semesters Offered:** Variable  
Class instruction in the art of classical ballet. Topics covered include basic alignment and physical placement for classical ballet, history of ballet, basic ballet barre, ballet center work and ballet combinations. Ballet classes may be repeated at the appropriate level, but total Ballet enrollments are limited to four.  
[CSU; UC]

DAN2. Ballet II (1.5)  
**Prerequisite:** DAN 1 with a grade of “C” or better.  
**Lec** 1 Hr; **Lab** 3 Hrs  
**Semesters Offered:** Variable  
Instruction in intermediate level classical ballet technique. Topics covered include physical placement for ballet, intermediate level ballet barre, center work and ballet combinations, point work, and dance production. Ballet variations with historical context will be studied and learned. Ballet classes may be repeated at the appropriate level, but total Ballet enrollments are limited to four.  
[CSU; UC]

DAN20. Modern Dance I (1.5)  
**Lec** 1 Hr; **Lab** 3 Hrs  
**Semesters Offered:** Variable  
Class instruction on beginning techniques of modern dance. Topics covered include the history of American Modern Dance pioneers and major works, technique analysis, creative exploration of movement shapes, levels, special patterns, floor patterns, line, qualities and dynamics of movement, dance composition and production. Modern Dance classes may be repeated at the appropriate level, but total Modern Dance enrollments are limited to four.  
[CSU; UC]

DAN30. Jazz Dance I (1.5)  
**Lec** 1 Hr; **Lab** 3 Hrs  
**Semesters Offered:** Variable  
Class instruction in the art of jazz dance. Topics covered include basic postural alignment for jazz dance, jazz warm-up, jazz locomotor movement, phrasing of jazz dance elements, and jazz dance production. Jazz Dance classes may be repeated at the appropriate level, but total Jazz Dance enrollments are limited to four.  
[CSU; UC]

DAN31. Jazz Dance II (1.5)  
**Prerequisite:** DAN 30  
**Lec** 1 Hr; **Lab** 3 Hrs  
**Semesters Offered:** Variable  
Class instruction in the art of intermediate level jazz dance. Topics covered include a technique warm-up, intermediate level body positions and locomotor movement, intermediate level dance phrasing and composition, jazz dance production. Jazz Dance classes may be repeated at the appropriate level, but total Jazz Dance enrollments are limited to four.  
[CSU; UC]

DAN102. Advanced Ballet (1)  
**Lab** 3 Hrs  
**Semesters Offered:** Variable  
Advanced ballet techniques and toe-shoes. Students should have knowledge of vocabulary, positions of feet and arms, barre work, and mechanics of added body movements as it relates to ballet.  
[CSU; UC]

DAN110. Intro. to Choreography/Jazz Emphasis (1.5)  
**Pass/No Pass Option**  
**Semesters Offered:** Variable  
Introductory techniques of movements of the now world-wide folk dance of jazz which was developed in early America by the Blacks.  
[CSU; UC]

DAN132. Advanced Jazz Dance (1)  
**Lab** 3 Hrs  
**Semesters Offered:** Variable  
Continued study of Jazz Dance techniques. Emphasis on developing performance technique and style. Course to provide jazz dance improvisation and choreography. Students should have knowledge of locomotor movement phrases, and have the ability to use jazz dance combinations.  
[CSU; UC]

DAN133. Lyrical Jazz Dance (1.5)  
**Lec** .5 Hrs; **Lab** 2.5 Hrs  
**Semesters Offered:** Variable  
Introductory techniques of lyrical jazz combined with a strong emphasis of classical ballet.  
[CSU; UC]
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Units</th>
<th>Prerequisite/Advisory</th>
<th>Credits Required</th>
<th>Pass/No Pass Option</th>
<th>Semesters Offered</th>
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<tbody>
<tr>
<td>DRA50</td>
<td>Intro. to Drafting and Design (3)</td>
<td></td>
<td></td>
<td></td>
<td>Pass/No Pass Option</td>
<td>Variable</td>
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<td>DRA52</td>
<td>Introduction to AutoCAD (3)</td>
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<td>Pass/No Pass Option</td>
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<td>DRA53</td>
<td>Advanced AutoCAD (3)</td>
<td></td>
<td>DRA 52 with a grade of C or better</td>
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<td>Pass/No Pass Option</td>
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<td>DRA54</td>
<td>AutoCAD 3D Modeling (2)</td>
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<td>DRA53, Adv. AutoCAD with a grade of C or better</td>
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<td>Pass/No Pass Option</td>
<td>Variable</td>
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<td>DRA56</td>
<td>Computer-Aided Electronic Drawing (3)</td>
<td></td>
<td>Concurrent enrollment or completion of DRA-50 is recommended</td>
<td></td>
<td>Pass/No Pass Option</td>
<td>Variable</td>
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<tr>
<td>DRA58</td>
<td>Computer-Aided Mechanical Drafting (3)</td>
<td></td>
<td>Concurrent enrollment or completion of DRA-50, DRA-52</td>
<td></td>
<td>Pass/No Pass Option</td>
<td>Variable</td>
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<tr>
<td>DRA64</td>
<td>Industrial Print Reading (2)</td>
<td></td>
<td></td>
<td></td>
<td>Pass/No Pass Option</td>
<td>Variable</td>
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<tr>
<td>DRA66</td>
<td>Introduction to Geographic Information Systems (GIS) (4)</td>
<td></td>
<td>DRA 50, or one year of high school drafting is recommended</td>
<td></td>
<td>Pass/No Pass Option</td>
<td>Variable</td>
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<tr>
<td>DRA70</td>
<td>Introduction to Architectural Drafting and Design (3)</td>
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<td></td>
<td>Pass/No Pass Option</td>
<td>Variable</td>
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<tr>
<td>DRA66</td>
<td>Introduction to Geographic Information Systems (GIS) (4)</td>
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<td>Pass/No Pass Option</td>
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<tr>
<td>DRA71</td>
<td>Computer-Aided Architectural Drafting (3)</td>
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<tr>
<td>DRA70</td>
<td>Introduction to Architectural Drafting and Design (3)</td>
<td></td>
<td></td>
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<td>Variable</td>
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</table>

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DRA72. Advanced Computer-Aided Architectural Drawing (3)

Pass/No Pass Option
Prerequisite: DRA 71 with a grade of C or better.
Lec 2 Hrs: Lab 3 Hrs
This course provides an advanced study through "hands-on" experience in using two and three-dimensional features of AutoCAD and/or other advanced architectural related application software such as Architectural Desktop. Students will prepare working drawings including foundation plans, site plan, floor plan, interior and exterior elevations residential electrical and mechanical systems, details, and specifications required for residential buildings. [CSU]

DRA74. Architectural Print Reading (2)
Pass/No Pass Option
Lec 2 Hrs
Semesters Offered: Variable
This course covers the fundamentals of interpreting and understanding drawings used in architecture and the building trades. [CSU]

DRA145. Special Projects (.5-2)
Pass/No Pass Option
Supervised study and laboratory practice involving special problems in drafting. DRA 50 and DRA 52 or equivalent experiences are recommended.
EARLY CHILDHOOD EDUCATION

ECE1. Principles and Practices of Teaching Young Children (3)
Lec 3 Hrs
Semesters Offered: Variable
A study of philosophies and principles of child development that support developmentally appropriate practices and constructive adult-child interactions within a culturally sensitive and inclusive environment. Course study includes historical roots of ECE programs, and the evolution of the practices promoting advocacy, professional ethics, and identity.
[CSU]

ECE2. Child, Family, and Community Relations (3)
Lec 3 Hrs
Semesters Offered: Variable
An examination of the developing child within a societal context that focuses on the interrelationship of family, school, and community. Emphasis is on historical, socio-economic, and cultural factors which influence the family and the processes of socialization.
[CSU]

ECE4. Introduction to Curriculum (3)
Lec 3 Hrs
Semesters Offered: Variable
Designed for students to develop and implement ECE curriculum which is emergent, individually appropriate, and inclusive.
[CSU]

ECE10. Observation and Assessment (3)
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
Provides a framework to introduce assessment of children in early childhood settings through observation of children at play using understandings about children to inform planning. Anecdotal records, rating systems, and multiple assessment strategies are explored. The course focuses on the appropriate use of assessment strategies to document growth, play and learning to join with families promoting children's success. Standards-based assessment is used to inform teaching practice and to ensure developmentally appropriate curriculum.
[CSU]

ECE12A. Preschool Theory & Practicum (3)
Prerequisite: FCS 14, ECE 3 with a grade of C or better.
Advisory: English 101.
Lec 5 Hrs; Lab 7.5 Hrs
Semesters Offered: Variable
Supervised, learning experience in a college demonstration childhood education center. Emphasis on program planning, teaching strategies, identification of needs of children, the humanistic learning environment and effective interpersonal relationships. Students must have TB clearance and physical exam.
[CSU]

ECE16. Preschool Curriculum: Music (1)
Lec 1 Hr
Semesters Offered: Variable
Emphasis on different types of music experiences in English and Spanish for language acquisition, cognitive development and ethnic culture appreciation.
[CSU]

ECE17. Preschool Curriculum: Movement (1)
Lec 1 Hr
Semesters Offered: Variable
Emphasis on movement education in the preschool and primary curriculum using different forms of physical activity. Basic movement skills and concepts in relation to movement exploration, apparatus, literature, poetry, music and rhythms.
[CSU]

ECE18. Communication Skills in E.C.E. (2)
Lec 2 Hrs
Semesters Offered: Variable
Designed to give students increased knowledge and skills in basic communication with adults and children. Students will learn to identify and practice specific skills which promote an effective communication process.
[CSU]

ECE19. Safety Health and Nutrition in the Preschool Classroom (3)
Lec 3 Hrs
Semesters Offered: Variable
Course is designed to provide students with the knowledge and skill to set up and maintain a safe, healthy, learning environment for young children in a preschool setting. Meets CDA functional areas: 1, 2, 11, 12, 13.
[CSU]

ECE20. Infant and Toddler Development (3)
Lec 3 Hrs
Semesters Offered: Variable
Designed for students interested in working with infants and toddlers of diverse needs and backgrounds. Focus is on developmental stages, social/emotional development, motor milestones, gender development, temperament issues, culture, language acquisition, parenting styles, and their relationships to quality care and early education of infants and toddlers.
[CSU]

ECE21. Infant/Toddler: Small Group Care (1)
Lec 1 Hr
Semesters Offered: Variable
Focus on infants and toddlers in group settings using the Program for Infant/Toddler Caregiving (PITC) model. The course will examine the philosophy, principles, and caregiving strategies needed to organize primary care for all infants and toddlers with concentration on continuity of care through positive adult-child relations, environments and routines.
[CSU]

ECE22. Infant/Toddler: Family Relations of Diverse Backgrounds (1)
Lec 1 Hr
Semesters Offered: Variable
Focuses on principles and strategies that develop effective working relationships with families of diverse backgrounds. Emphasis on how partnerships with parents impact the quality of infant/toddler program, parent involvement, Parent education, staff/parent relationships, and caregiver/parent coping skills.
[CSU]

ECE23. Infant/Toddler Education: Cognitive and Language Learning (2)
Lec 2 Hrs
Semesters Offered: Variable
Focuses on cognitive and language development of all infants and toddlers. Description of cognitive theories and demonstrations of strategies and appropriate activities that promote cognitive and language development for infants and toddlers in group settings.
[CSU]

ECE24, Infant/Toddler: Special Needs (3)
Advisory: It is recommended that students complete ECE 20, Infant/Toddler Development and/or ECE 26 Introduction to Special Education before enrolling in this course.
Lec 3 Hrs
Semesters Offered: Variable
Designed for students interested in increasing their skills and knowledge to work effectively with infants and toddlers with special needs in an inclusive environment. Focus will include laws, regulations, and rights of young children with special needs: theories, research, and best practices from the fields of Early Childhood Education and Early Intervention/Early Childhood Special Education.
[CSU]

Advisory: Students taking online courses must have basic computer skills for operating Microsoft Word and e-mail, including sending attachments and files. Students also need access to the Internet and must have adequate hardware and software capabilities. Access to computers is also available at the Hartnell College Library/LRC.
ECE25. Preschool Learning Problems (1)
Lec 1 Hr
Semesters Offered: Variable
Developing an understanding of the role of the teacher as a knowledgeable observer, skilful interpreter, and educational planner of the preschool curriculum for children with potential learning problems. Emphasis on informal assessment and evaluation based on the competency and integrity of the teacher. Meets CDA functional areas: 3, 4, 5, 6, 8, 9, 10, 12, 13. [CSU]

ECE26. Children with Special Needs (3)
Lec 3 Hrs
Semesters Offered: Variable
An introduction and overview of the history of special education, landmark legislation, and federal mandates protecting the rights of children with special needs. Focus will include characteristics and diverse educational needs of children with special needs, theories, research, and practical applications of best practices from the fields of ECE and Early Intervention. [CSU]

ECE27. Principles and Practices in Guiding Children’s Behaviors (3)
Lec 3 Hrs
Semesters Offered: Variable
Designed for students interested in the basic principles and practices for guiding children with diverse needs and behaviors in early childhood settings. Emphasis on the guidance and discipline techniques most effective in supporting all children through their social/emotional development, self regulation and adaptations to group care settings. [CSU]

ECE45. Special Projects (1-3)
Semesters Offered: Variable
Designed for early childhood education students who are interested in developing skills and knowledge beyond the scope of an existing early childhood education course. Students will gain hands-on experience in advanced methodology, curriculum, or assessment/evaluation of children in an early childhood education setting. This course may be taken three times with different or advanced content for a maximum of nine units. [CSU]

ECE50. Language Arts Experiences for Young Bilingual Children (1)
Lec 1 Hrs
Semesters Offered: Variable
Developing knowledge and skill in providing bilingual experiences which foster intellectual, social and language development in children who are at different levels of bilingualism. Meets CDA functional areas: 5, 6, 8, 13. [CSU]

ECE51. Spanish Language Experiences for Young Children (1)
Lec 1 Hr
Semesters Offered: Variable
Developing knowledge and skill in providing experiences which foster Spanish language development in Spanish speaking children in the preschool and primary grades. This course is designed for parents and instructional aides of Spanish speaking children. Meets CDA functional areas: 5, 6, 8, 13. [CSU]

ECE53. Teaching in a Diverse Society (3)
Lec 3 Hr
Semesters Offered: Variable
Examination of the major social, economic, and psychological factors involved in interactions and relationships that contribute to personal and group differences and how these factors impact working with young children and their families in early education programs. Various strategies for working with diversity issues in the classroom will be explored, with emphasis on an anti-bias approach. Includes self-examination and reflective activities dealing with bias, discrimination, and systemic oppression. Consideration of practices that promote equity and a deeper understanding of how to best support all children as they gain a sense of identity and become competent members of our diverse society. [CSU]

ECE70A. Administration of Child Development Programs (3)
Prerequisite: ECE 1, ECE 2, ECE 3, ECE 101, and FCS 14 with a grade of C or better.
Lec 3 Hrs
Semesters Offered: Variable
The philosophy and principles of program planning, budgeting and personal administration used in management of early childhood education programs. [CSU]

ECE70B. Advanced Administration of Child Development Programs (3)
Prerequisite: ECE 70A with a grade of C or better.
Lec 3 Hrs
Semesters Offered: Variable
Advanced students of Early Childhood Education, supervisors and administrators of child development programs will expand skills and knowledge in program funding, organizational systems, program management and leadership skills. Focus on profit and non-profit programs, program funding, grant writing, program evaluation, program improvement, advocacy and professionalism in the Child Development field. [CSU]

ECE71. Supervision of Adults in an ECE Setting (2)
Prerequisite: Eligibility for English 1A. Students must present copy of Child Development Teacher permit on the first day of class.
Advisory: Students must have completed Core courses and electives in ECE and 16 units in general education to enroll in this class.
Lec 2 Hrs
Semesters Offered: Variable
Course designed for supervisors and administrators coordinating early childhood programs. Emphasis on methods and principles of implementing a strong staff component in a licensed program or agency. Meets the licensing requirement for teachers, site supervisors and directors. [CSU]

ECE80. E.C.E. Practicum for the Employed (3)
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
Course designed to give working students practical experiences in teaching strategies within various curricular areas. Focus on creative aspects of program planning and implementation. Meets CDA functional areas: 1-13. [CSU]

ECE81. E.C.E. Practicum in Cognitive Development for the Employed (3)
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
Course designed to give working students practical experiences in teaching strategies within various curricular areas. Focus on cognitive aspects of program planning and implementation. Meets CDA functional areas: 1-13. [CSU]

ECE82. E.C.E. Practicum in Physical Develop. for the Employed (3)
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
Course designed to give working students practical experiences in teaching strategies within various curricular areas. Focus on physical competence among preschool children and on program planning and implementation which encourages physical growth. [CSU]

ECE83. E.C.E. Theory and Practicum in Social Develop. of Children (3)
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
Course designed to give working students practical experience in teaching strategies within various curricular areas. Focus on social competence among preschool children and on program planning and implementation which encourages social growth. [CSU]
Advisory: Students taking online courses must have basic computer skills for operating Microsoft Word and e-mail, including sending attachments and files. Students also need access to the Internet and must have adequate hardware and software capabilities. Access to computers is also available at the Hartnell College Library/LRC.
ECONOMICS

ECO1. Principles of Economics-Macro (3)
   Lec 3 Hrs
   Semesters Offered: Variable
   Macroeconomics examines national income, employment, inflation, economic cycles and growth, international issues and government policies.
   [CSU; UC; CSU-GE, AREA D2; IGETC, AREA 4]

ECO5. Principles of Economics-Micro (3)
   Lec 3 Hrs
   Semesters Offered: Variable
   Microeconomics examines the workings of the marketplace, the economics of the consumer, the business firm, the distribution of income, and the allocation of resources.
   [CSU; UC; CSU-GE, AREA D2; IGETC, AREA 4]

ECO45. Special Projects (1-3)
   Semesters Offered: Variable
   A supervised program of independent research and study in Economics. Completion of Economics 1 or 5 recommended.
   [CSU]

EDU1. Multicultural Perspectives in Education (3)
   Advisory: English 1A; see below.
   Lec 3 Hrs
   Semesters Offered: Variable
   An introduction to education, this course reviews the historical, sociological, philosophical and psychological perspectives, which form the context of the American educational system. Designed to encourage prospective teachers to reflect on their decision to enter the teaching profession, this course will focus on analyzing the multicultural dynamics in the historical and social structure of school and society, while providing opportunities to analyze a variety of teaching perspectives, and to gain and develop the cultural knowledge of self and others necessary to teach in a multicultural society. As such, it includes a service-learning component that involves 30 hours of active participation at a school site.
   [CSU; UC; CSU-GE, AREA D3, D7]

EDU10. Foundations of Success (2.5)
   Pass/No Pass Only
   Lec 1.5 Hrs; Lab 3.0
   Semesters Offered: Variable
   Introduction to professional behaviors, attitudes and values that lead to academic and career success in the information economy. Topics include building self-managed teams, effectively leading and participating in teams, identifying opportunities and threats to success, and exploring the culture of knowledge work.

EDU111. Team Self-Management (2)
   Pass/No Pass Only
   Lec 2 Hrs
   Semesters Offered: Variable
   Fundamentals of project management with a self-managed team. Application of team skills and project management skills to a research project.
### ELECTRONICS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Semesters Offered</th>
<th>Prerequisites</th>
</tr>
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<tbody>
<tr>
<td>ELE52</td>
<td>Electronic Fundamentals</td>
<td>5</td>
<td>Variable</td>
<td></td>
</tr>
<tr>
<td>Lec 4 Hrs;</td>
<td></td>
<td></td>
<td>Lab 3 Hrs</td>
<td></td>
</tr>
<tr>
<td>ELE55</td>
<td>Electronic Devices and Circuits</td>
<td>5</td>
<td>Variable</td>
<td>ELE52 or equivalent knowledge of electronics</td>
</tr>
<tr>
<td>Lec 4 Hrs;</td>
<td></td>
<td></td>
<td>Lab 3 Hrs</td>
<td></td>
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<tr>
<td>ELE56</td>
<td>Advanced Circuit Analysis</td>
<td>3</td>
<td>Variable</td>
<td>Completion of ELE 52, ELE 151, MAT 151 or MAT 121</td>
</tr>
<tr>
<td>Lec 3 Hrs;</td>
<td></td>
<td></td>
<td>Lab 3 Hrs</td>
<td></td>
</tr>
<tr>
<td>ELE57</td>
<td>Instruments and Controls Programming</td>
<td>2.5</td>
<td>Variable</td>
<td>ELE 52, Electronic Fundamentals, or equivalent knowledge of electronics</td>
</tr>
<tr>
<td>Lec 1.6 Hrs;</td>
<td>Lab 1.2 Hrs</td>
<td></td>
<td></td>
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<tr>
<td>ELE151</td>
<td>D.C. Circuit Analysis</td>
<td>2.5</td>
<td>Variable</td>
<td></td>
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</tbody>
</table>

Students taking online courses must have basic computer skills for operating Microsoft Word and e-mail, including sending attachments and files. Students also need access to the Internet and must have adequate hardware and software capabilities. Access to computers is also available at the Hartnell College Library/LRC.
EGN1. Introduction to Engineering and Related Technologies (3)

Pass/NoPass Option

Lec 2 Hrs; Lab 3 Hrs

Semesters Offered: Variable

This course provides an overview of different aspects of the engineering profession such as: scholastic requirements, employment opportunities, design challenges, prerequisites for various engineering majors, engineering responsibilities, aims of technical engineering training, code of ethics, and the purpose of engineering technology methods. Students will frequently use project management concepts and work in teams on problem solving and design projects.

[CSU; UC]

EGN1A. Plane Surveying (3)

Prerequisite: Math 24 or equivalent with a grade of C or better.

Lec 2 Hrs; Lab 3 Hrs

Semesters Offered: Variable

This course provides an opportunity to gain technical knowledge and essential skills used in surveying and civil engineering. Topics include measurement, distance correction, leveling, angle, area computations, computer calculations, topographic surveying, electronic distance measuring instruments, construction applications and GPS.

[CSU; UC]

EGN2. Engineering Graphics/CAD (4)

Pass/NoPass Option

Lec 3 Hrs; Lab 3 Hrs

Semesters Offered: Variable

The principles and application of engineering drawing, including orthographic projections, freehand sketching, pictorial drawings, dimensioning, sections, auxiliary, and graphical analysis in solving engineering problems are the core of this course. Students will extensively use AutoCAD as a computer-aided drafting design tool to complete the required projects. This course will also cover the engineering design process and project management.

[CSU; UC]

EGN4. Materials Science (3)

Prerequisite: CHM-1A and PHY-4A with a grade of "C" or better (PHY-4A may be taken concurrently)

Lec 2 Hrs; Lab 3 Hrs

Semesters Offered: Variable

Physical, electrical and mechanical properties of materials including metals, alloys, ceramics, semi-conductors, polymers, and composite materials. Emphasis on atomic and crystalline structures, heat treatment, phase equilibria, transformations, energy bands in solids, studies of grain structure, and corrosion. Laboratory work in metals, corrosion, magnetic properties and plastics.

[CSU; UC]

EGN6. Introduction to Circuit Analysis (4)

Prerequisite: PHY-4B: Electricity and Magnetism with a grade of "C" or better.

Corequisite: MAT 5: Differential Equations.

Lec 3 Hrs; Lab 3 Hrs

Semesters Offered: Variable

An introduction to basic circuit laws and network theorems, analysis of various types of DC and AC circuits, purely resistive networks, RL, RC, and RLC circuits, and solid state devices. Examines network theorems, mesh and nodal analysis, superposition phasors, complex-frequency concepts, the characteristics of operational amplifiers and computer circuit analysis. Laboratory component introduces the instruments and experimental techniques of electrical circuits and provides experiences with the theoretical concepts of the course. Students also use software to simulate and design circuits.

[CSU; UC]

EGN8. Engineering Statics (3)

Prerequisite: PHY-4A and MAT-3B with a grade of "C" or better. (Math 3B may be taken concurrently.)

Lec 3 Hrs

Semesters Offered: Variable

Analyzes force vectors on structures in equilibrium, properties of forces, moments, couples and resultants, conditions for equilibrium, friction, centroids, and moments of inertia. Included are equilibrium of rigid bodies, trusses, frames, and machines, as well as the calculation of centers of mass, centroids, friction, distributed forces, beams, shear and moment diagrams, and moments of inertia.

[CSU; UC]

EGN12. Engineering Design with SolidWorks (3)

Pass/No Pass Option

Advisories: DRA 50: Introduction to Drafting Technology and/or EGN 2: Engineering Graphics/CAD

Lec 2 Hrs; Lab 3 Hrs

Semesters Offered: Variable

Introduces students to the engineering design processes utilizing the SolidWorks 3-D computer-aided design modeling application software. Students will construct parts, solid models, assemblies, as well as generate orthographic drawings, add dimensions and plot to produce engineering documentation packages. Advisories: DRA 50: Introduction to Drafting Technology and/or EGN 2: Engineering Graphics/CAD.

[CSU]

EGN 45. Special Projects (1-3)

This course is designed for Science, Technology, Engineering, and Math (STEM). Students of exceptional promise who are interested in investigating topics beyond the scope of a regular engineering course. Students will gain hands-on experience in advanced engineering topics involving project management. This course may be taken three times with different or advanced content for a maximum of nine units.

[CSU]
ENG1A. College Composition and Reading (3)
Prerequisite: A qualifying grade (C or better) in English 101 or in ESL 101F at Hartnell College or an equivalent course and grade from another college. Students can also place in English 1A through a qualifying score on the STAAR test.
Advisory: See Below.
Lec 3 Hrs
Semesters Offered: Variable
Introduction to composition with emphasis on writing, exposition, and reading of selected works from a variety of academic and cultural contexts, and writing from research. Students with a minimum of 6,500 words in graded assignments.
[CSU; UC; CSU-GE AREA A2, IGETC, AREA 1]

ENG1B. College Literature and Composition (3)
Prerequisite: English 1A with a grade of C or better.
Advisory: See Below.
Lec 3 Hrs
Semesters Offered: Variable
Introduction to composition with emphasis on writing, exposition, and reading of selected works from a variety of academic and cultural contexts, and writing from research. Students with a minimum of 6,000 words in graded assignments.
[CSU; UC; CSU-GE AREA A2, C2; IGETC, AREA 1]

ENG2. Critical Thinking and Writing (3)
Prerequisite: Completion of Eng. 1A with a grade of C or better.
Advisory: See Below.
Lec 3 Hrs
Semesters Offered: Variable
Students will use critical reading, thinking, and writing skills beyond the level achieved in ENG-1A to develop argumentative essays in conjunction with predominantly nonfiction prose and discussion of readings. Students will write a total of 6,000 words comprised of short essays, a research paper, and homework assignments.
[CSU; UC; CSU-GE, AREA A3, IGETC, AREA 1]

ENG10. Introduction to Linguistics (3)
Prerequisite: Completion of ENG-1A with a grade of "C" or better.
Advisory: See Below.
Lec 3 Hrs
Semesters Offered: Variable
Introduction to the study of human language. Includes an inquiry into the nature of language, change and diversity, sound patterns, transformational grammar, language acquisition, and the relationship between linguistics and allied disciplines.
[CSU; UC; IGETC, AREA 3; CSU-GE, AREA C2]

ENG17. The Contemporary Shakespeare (3)
Prerequisite: Eligibility for Eng. 1A.
Lec 3 Hrs
Semesters Offered: Variable
An examination of Shakespeare's poetry and plays, involving close study of representative works. Focuses include the cultural context of Shakespeare's life and works, his lasting literary influence, and the interpretation of Shakespeare in performance on stage and in film adaptations.
[CSU; UC; CSU-GE; AREA C2; IGETC, AREA 3]

ENG22. Introduction to Poetry (3)
Lec 3 Hrs
Semesters Offered: Variable
This course focuses on the writing of poetry, with emphasis on workshops of students' work. Intensive study of poems by classic as well as contemporary poets.
[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3]

ENG24. The Short Story (3)
Prerequisite: Completion of Eng. 1A with a grade of C or better.
Lec 3 Hrs
Semesters Offered: Variable
Reading, discussing, and writing about a diverse selection of classics and contemporary short fiction. Exploration of a spectrum of voices, styles, formal structures, and themes will lead to an understanding and appreciation of stories from different cultures and perspectives.
[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3]

ENG25. American Indian Literature (3)
Prerequisite: Completion of Eng. 1A with a grade of C or better.
Lec 3 Hrs
Semesters Offered: Variable
Introduction to American Indian literature from the oral tradition to contemporary authors such as Momaday, Erdrich and Silko. The course focuses on literary themes and issues concerning the mythology, heritage, race, traditions, and culture of American Indians. ENG 25 is identical to ETH 25, American Indian Literature. ENG 25 is not open to students who have completed ETH 25 with a grade of "C" or better.
[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3]

ENG26. Chicano Literature (3)
Prerequisite: Completion of Eng. 1A with a grade of C or better.
Lec 3 Hrs
Semesters Offered: Variable
An introduction to the study of Chicana/o Literature from the oral tradition, "el cuento," to the written contemporary works of authors such as Valdez, Cisneros, Villasenor, and Soto.
[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3]

ENG31 Beginning Creative Writing/Introduction to Magazine Publishing (3)
Prerequisite: Eligibility for Eng. 1A.
Advisory: See Below.
Lec 3 Hrs
Semesters Offered: Variable
Designed to provide students with the opportunity to practice the art of creative writing. Emphasis is placed on writing and publishing fiction, poetry, and essays. Upon completion, students should be able to craft and critique their own writing and critique the writing of others. Readings will focus on the critical analysis of short stories and literature in order to achieve a better understanding of the interrelationship between creative arts, humanities and the individual.
[CSU; UC; CSU-GE, AREA C2]
ENG32. Intermediate Creative Writing/Introduction to Magazine Publishing and Editing (3)
Prerequisite: Completion of English 31 with a grade of C or better.
Advisory: See Below
Lec 3 Hrs
Semesters Offered: Variable
This course focuses on continuing to apply the techniques and structures of writing fiction and poetry introduced in ENG 31. Emphasis is placed on writing and publishing fiction, poetry, and essays. Upon completion, students should be able to craft and critique their own writing and critique the writing of others. Readings will focus on the critical analysis of short stories and literature in order to achieve a better understanding of the inter-relationship between creative arts, humanities, and the individual.
[CSU; UC; CSU-GE, AREA C2]

ENG33. Advanced Creative Writing/Magazine Publishing and Editing (3)
Prerequisite: Completion of English 32 with a grade of C or better.
Advisory: See Below
Lec 3 Hrs
Semesters Offered: Variable
This course focuses on continuing to apply the techniques and structures of writing fiction and poetry introduced in ENG 32. Emphasis is placed on writing and publishing fiction, poetry, and essays. Upon completion, students should be able to craft and critique their own writing and critique the writing of others. Readings will focus on the critical analysis of short stories and literature in order to achieve a better understanding of the inter-relationship between creative arts, humanities, and the individual.
[CSU; UC; CSU-GE, AREA C2]

ENG41. Art of Steinbeck (3)
Prerequisite: Eligibility for Eng. 1A
Lec 3 Hrs
Semesters Offered: Variable
A close study of John Steinbeck’s California novels that best exemplify his themes, style, and use of setting.
[CSU; UC; CSU-GE, AREA C2]

ENG44B. World Literature II (3)
Prerequisite: Completion of Eng. 1A with a grade of C or better.
Advisory: See Below
Lec 3 Hrs
Semesters Offered: Variable
This course is a study of world literature from the Renaissance to the present time. Readings will include poetry and prose and the course will consider the literary, cultural, and historical significance of literature from Western and Non-Western traditions.
[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3]

ENG45. Special Projects (1-3)
Prerequisite: Completion of Eng. 1A with a grade of C or better.
Advisory: See Below
Semesters Offered: Variable
This is a program of specific study into a particular field of language or literature for students who are interested investigating topics beyond the scope of a standard English course. This course may be taken three times with different or advanced content for a maximum of nine units.
[CSU]

ENG46A. Survey of English Literature I (3)
Prerequisite: Completion of Eng. 1A with a grade of C or better.
Lec 3 Hrs
Semesters Offered: Variable
A survey of English literature from early works in Old English to approximately 1785. Readings will include poetry, prose, drama, and religious writing of this period, chosen for their literary, historical, and cultural significance.
[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3]

ENG46B. Survey of English Literature II (3)
Prerequisite: Completion of Eng. 1A with a grade of C or better.
Lec 3 Hrs
Semesters Offered: Variable
A survey of English literature from romanticism to the present. Readings will include poetry, prose and dramatic works chosen for their literary, historical, and cultural significance.
[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3]
ENG51. Film Appreciation 1960 to the Present (3)
Lec 3 Hrs
Semesters Offered: Variable
An introduction to film as both an art form and a technological development through the study of representative examples of foreign and domestic films from 1960 to the present. The course will develop students' understanding of cinematic developments over time and in different regions, as well as basic concepts of film study: photography and mise-en-scene, editing, and sound.

[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3]

ENG101. Intermediate Composition and Reading (3)
Prerequisite: Placement through the STAAR, or completion of ENG 253 or ESL 165 or ESL 155 and ESL 158 with a grade of C or better, or an equivalent course with a grade of C or better from another college.
Lec 3 Hrs
Semesters Offered: Variable
Development of writing and reading skills including critical analysis of texts with emphasis on elements of the sentence, the paragraph, and the short essay.

ENG101L. Intermediate Composition and Reading - Lab (1)
Pass/NoPass Only
Advisory: Eligibility for, or concurrent enrollment in ENG 101.
Lab 3 Hrs
Semesters Offered: Variable
This course features individualized, open-entry/open-exit lab instruction in support of the ENG 101 curriculum. It promotes the development of writing and reading skills including critical analysis of texts with emphasis on elements of the sentence, the paragraph, and the short essay.

ENG123L. College Composition and Reading-Lab (1)
Pass/NoPass Only
Advisory: Concurrent enrollment in ENG-1A.
Lab 3 Hrs
Semesters Offered: Variable
This is a course of supervised, individualized instruction in writing and critical reading supplementing the curriculum of the ENG-1A lecture class.

ENG124L. College Reading and Composition - Lab (1)
Pass/NoPass Only
Lab 3 Hrs
Semesters Offered: Variable
Individualized instruction emphasizing the curriculum of the lecture class in writing/reading.

ENG175. Individualized Study in Writing (5)
Pass/NoPass Only
Lab 1.5 Hrs
Semesters Offered: Variable
A supervised, individualized, multi-media course of text and/or computerized activities focusing on developing and improving specific writing and/or composition skills involving spelling, grammar, punctuation, sentence structure, paragraph and essay structure, and developing research papers.

ENG176. Intensive Writing (1)
Pass/NoPass Only
Lab 3 Hrs
Semesters Offered: Variable
Advisory: English as a Second Language students are advised that they should be able to compose elementary sentences to benefit from this course.

ENG253. Fundamentals of Composition and Reading (5)
Lec 5 Hrs
Semesters Offered: Variable
Development of writing and reading skills with emphasis on elements of the sentence, paragraph, and the short essay.

ENG253L. Fundamentals of Composition and Reading - Lab (1)
Pass/NoPass Only
Advisory: Eligibility for, or concurrent enrollment in ENG 253.
Lab 3 Hrs
Semesters Offered: Variable
An individualized, open-entry/open-exit lab, this course supports the ENG 253 lecture course by reinforcing the development of writing and reading skills with emphasis on elements of the sentence, the paragraph, and the short essay.

ENG57. College Reading and Study Skills (1)
Pass/NoPass Option
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
Designed to help below average readers develop critical reading skills for better comprehension and analysis of various college reading materials.

ENG184. Critical Reading and Writing Strategies – Lab (1)
Pass/NoPass Only
Advisory: Eligibility for ENG-101 or higher.
Lab 3 Hrs
Semesters Offered: Variable
An individualized multimedia course designed to develop and review critical reading, thinking, and writing skills and strategies for students prior to enrolling in transfer level courses such as ENG-1A, ENG-1B, ENG-2, or taking state certification exams.

ENG185. Individualized Study in Reading (5)
Pass/NoPass Only
Lab 1.5 Hrs
Semesters Offered: Variable
An individualized, multimedia Lab course designed to develop and improve reading and academic skills under instructor supervision. Students taking this lab class will consult with their instructor, set their schedule, select from a variety of reading skills including main ideas, inferences, literary analysis, speed-reading and others, and focus on developing and improving a prescribed set of skills.

ENG186. Intensive Reading (1)
Pass/NoPass Only
Lab 3 Hrs
Semesters Offered: Variable
An individualized, multi-media Lab course designed to develop and improve reading and academic skills under instructor supervision. Students taking this lab class will consult with their instructor, set their schedule, select from a variety of reading skills including main idea, inferences, literary analysis, speed-reading and others, and focus on developing and improving a prescribed set of skills.

ENG300. GED/Language Arts, Reading (0)
NG
Lab 5 Hrs
Semesters Offered: Variable
Prepares students to pass the language arts reading component of the GED test and includes content for nonfiction texts and literary texts (prose fiction, poetry, and drama). Focuses on comprehension, application, analysis, and synthesis thinking skills.

ENG301. GED/Language Arts, Writing (0)
NG
Lab 5 Hrs
Semesters Offered: Variable
Prepares students to pass the language arts writing component of the GED test and consists of content for essay writing including organization of written materials, correct sentence structure, correction of errors in usage, and writing mechanics (punctuation, spelling, and capitalization). Focuses on sentence correction, revision, and restructuring.

Advisory: Students taking online courses must have basic computer skills for operating Microsoft Word and e-mail, including sending attachments and files. Students also need access to the Internet and must have adequate hardware and software capabilities. Access to computers is also available at the Hartnell College Library/LRC.
**ESL101.** English for Academic Purposes II (5)  
**Pass/NoPass Option**  
**Prerequisite:** ESL 165 with a grade of C or better.  
**Lec 5 Hrs**  
**Semesters Offered:** Variable  
Development of college reading and composition skills for students whose first language is not English and/or students who want more help with grammar and vocabulary. Emphasis on writing essays from readings and college classroom participation skills. Prepares students for ENG-1A.

**ESL101L.** English for Academic Purposes II - Lab(1)  
**Pass/No Pass Only**  
**Lab 3 Hrs**  
**Semesters Offered:** Variable  
Self-paced individualized instruction in support of the curriculum in ESL101.

**ESL125.** Grammar and Writing I (5)  
**Pass/NoPass Option**  
**Corequisite:** ESL 125L  
**Advisory:** Students should be literate enough in their native language to write a note to a friend or read a newspaper in their native language. They should have enough English language competency to speak and/or write understandable simple sentences despite making grammatical errors.  
**Lec 5 Hrs**  
**Semesters Offered:** Variable  
Course emphasizes grammar and writing for intermediate level ESL students. Verb tenses, question forms, nouns, modifiers, and sentence-level writing skills are stressed. Listening and speaking will also be practiced.

**ESL125L.** Grammar and Writing I - Lab (1)  
**Pass/NoPass Only**  
**Lab 3 Hrs**  
**Semesters Offered:** Variable  
**Corequisite:** ESL 125  
Individualized lab instruction in support of the ESL 125 curriculum for high-beginning level ESL students.

**ESL126.** Listening and Speaking I (3)  
**Pass/NoPass Option**  
**Advisory:** Students should be literate enough in their native language to write a note to a friend or read a newspaper in their native language. They should have enough English language competency to speak and/or write understandable simple sentences despite making grammatical errors.  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
A course for listening and conversation practice, at the high-beginning level, to promote the development of listening and speaking competency. This class requires 3 hours week in the Language Lab.

**ESL128.** Reading and Vocabulary I (4)  
**Pass/NoPass Option**  
**Advisory:** Students should be literate enough in their native language to write a note to a friend or read a newspaper in their native language. They should have enough English language competency to speak and/or write understandable simple sentences despite making grammatical errors.  
**Lec 4 Hrs**  
**Semesters Offered:** Variable  
This course reviews basic literacy, introduces general and academic vocabulary, and develops basic reading comprehension skills for high-beginning level ESL students.

**ESL135.** Grammar and Writing 2 (5)  
**Pass/NoPass Option**  
**Prerequisite:** ESL 125 with a grade of C or better or placement by Hartnell’s Assessment.  
**Corequisite:** ESL 135L  
**Lec 5 Hrs**  
**Semesters Offered:** Variable  
Course emphasizes grammar and writing for low-intermediate level ESL students. Verb tenses, question forms, nouns, modifiers, and sentence-level writing skills are stressed. Listening and speaking will also be practiced.

**ESL135L.** Grammar and Writing 2 - Lab (1)  
**Pass/NoPass Only**  
**Corequisite:** ESL-135  
**Lab 3 Hrs**  
**Semesters Offered:** Variable  
Individualized lab instruction in support of the ESL 135 curriculum for low-intermediate level ESL students.

**ESL136.** Listening and Speaking Practice 2 (3)  
**Advisory:** ESL-126  
**Pass/NoPass Option**  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
Listening and conversation practice, at the intermediate level, to promote the development of listening and speaking competency.

**ESL138.** Reading and Vocabulary 2 (4)  
**Pass/NoPass Option**  
**Lec 4 Hrs**  
**Semesters Offered:** Variable  
This course is designed to improve the basic reading skills of low-intermediate level ESL students. Working with the 3,000 most frequently used words, students will build English vocabulary and improve reading comprehension.

**ESL145.** Grammar and Writing 3 (5)  
**Pass/NoPass Option**  
**Prerequisite:** ESL 135 with a grade of C or better or placement by Hartnell’s Assessment.  
**Corequisite:** ESL 145L  
**Lec 5 Hrs**  
**Semesters Offered:** Variable  
Course emphasizes grammar and writing for intermediate level ESL students. Verb tenses and more complex sentence-level writing skills are stressed. Listening and speaking will also be practiced.

**ESL145L.** Grammar and Writing 3-LAB (1)  
**Pass/NoPass Only**  
**Corequisite:** ESL 145  
**Lab 3 Hrs**  
**Semesters Offered:** Variable  
Self-paced individualized lab instruction in support of the ESL-145 curriculum for intermediate ESL students.

**ESL146.** Listening and Speaking 3 (3)  
**Pass/No Pass Option**  
**Advisory:** ESL 136  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
Listening and conversation practice, at the advanced level, to promote the development of listening and speaking competency.

**ESL148.** Reading and Vocabulary 3 (3)  
**Pass/NoPass Option**  
**Lec 3 Hrs; Lab 3 Hrs**  
**Semesters Offered:** Variable  
This course is designed to improve the vocabulary and reading comprehension skills of intermediate level ESL students using reading materials that explore the social, economic, and political forces that shape United States culture.
ESL152. English Pronunciation and Spelling for Spanish Speakers (3)
Lec 3 Hrs
Semesters Offered: Variable
Contrasts English pronunciation and spelling with that of Spanish. Includes practice of single sounds, words, expressions, and extended speech. Though the course is designed for Spanish speakers, non-Spanish speakers can also benefit from this course.

ESL155. Grammar and Writing 4 (5)
Prerequisite: ESL 145 with a grade of C or better, or placement by Hartnell’s Assessment.
Corequisite: ESL 155L
Lec 5 Hrs
Semesters Offered: Variable
Emphasizes grammar and writing for high-intermediate level ESL students. Verb tenses, conditionals, complex sentences, and paragraph writing skills are stressed. Listening and speaking will also be practiced.

ESL155L Grammar and Writing 4-LAB (1)
Corequisite: ESL-155
Lab 3 Hrs
Semesters Offered: Variable
Self-paced individualized lab instruction in support of the ESL 155 curriculum for intermediate ESL students.

ESL158. Reading and Vocabulary IV (4)
Pass/NoPass Option
Lec 4 Hrs
Semesters Offered: Variable
Develops the vocabulary and critical reading abilities of high-intermediate to low-advanced students, using contemporary and literary texts that emphasize critical reading and writing skills.

ESL165. English for Academic Purposes I (5)
Pass/NoPass Option
Prerequisite: ESL-155 and ESL-158 with grades of “C” or better.
Lec 5 Hrs
Semesters Offered: Variable
Introduction to college reading and composition for ESL students. Emphasis on the paragraph and short essay. Includes discussion of American culture and focus on classroom participation skills. Prepares students for ESL-101.

ESL165L. English for Academic Purposes I-Lab (1)
Pass/NoPass Only
Lab 3 Hrs
Semesters Offered: Variable
Self-paced individualized lab instruction in support of the ESL 165 curriculum for advanced ESL students.

ESL310. Basic English Pronunciation (0)
NG
Lab 5 Hrs
Semesters Offered: Variable
This intensive course is designed to teach beginning ESL students the basic pronunciation and discrimination of English sounds (phonemes.)

ESL320. Basic English Pronunciation II (0)
NG
Lab 5 Hrs
Semesters Offered: Variable
Designed for high-beginning to low-intermediate ESL students. Helps students develop accurate spoken English. Listening skills are also developed.

ESL330. Basic English Pronunciation III (0)
NG
Lab 5 Hrs
Semesters Offered: Variable
Designed for Spanish speaking students, but speakers of other languages can also benefit from the course. Helps low-intermediate students develop accurate spoken English. Contrasts English sounds and spellings with Spanish sounds and spellings. Listening skills are also developed.

ESL410. Conversation and Vocabulary I (0)
NG
Lec 2.3 Hrs
Semesters Offered: Variable
Develops vocabulary and conversation skills for low-beginning English. It provides the tools to participate in personal and professional daily life interactions.

ESL420. Conversation and Vocabulary II (0)
NG
Lec 2.3 Hrs
Semesters Offered: Variable
Develops vocabulary and conversation skills for beginning level English. It provides the tools to participate in personal and professional daily life interactions.

ESL430. Conversation and Vocabulary III (0)
NG
Lec 2.3 Hrs
Semesters Offered: Variable
Develops vocabulary and conversation skills for high-beginning level English; it provides the tools to participate in personal and professional daily life interactions.

ESL440. Conversation and Vocabulary IV (0)
NG
Lec 2.3 Hrs
Semesters Offered: Variable
Develops vocabulary and conversation skills for low-intermediate English; it provides the tools to participate in personal and professional daily life interactions.

ESL510. Grammar Skills I (0)
NG
Lec 2.3 Hrs
Semesters Offered: Variable
Emphasizes English reading, writing, listening, and speaking skills with a grammar foundation for low-beginning ESL students.

ESL520. Grammar Skills II (0)
Advisory: Students should be able to perform course objectives from ESL 510.
NG
Lec 2.3 Hrs
Semesters Offered: Variable
Emphasizes English reading, writing, listening, and speaking skills with a grammar foundation for beginning ESL students.

ESL530. Grammar Skills III (0)
Advisory: Students should be able to perform course objectives from ESL 520.
NG
Lec 2.3 Hrs
Semesters Offered: Variable
Emphasizes English reading, writing, listening, and speaking skills with a grammar foundation for high-beginning ESL students.

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ETH1.  Introduction to Ethnic Studies (3)
   Lec 3 Hrs
   **Semesters Offered:** Variable
   A survey and comparative analysis of the cultural, economic, political and social factors in the experiences of racial and ethnic groups in the United States, including a historical and contemporary examination of white supremacy in the United States.
   [CSU; UC; CSU-GE, AREA D3, IGETC, AREA 4]

ETH2. Chicano Leadership (3)
   Lec 3 Hrs
   **Semesters Offered:** Variable
   Multidisciplinary survey of Chicano leadership including a discussion of the history, politics, culture, and organizational efforts of Chicanos at the local, state, and national levels.
   [CSU; UC; CSU-GE, AREA D3, IGETC, AREA 4]

ETH3. Chicanos in American Society (3)
   Lec 3 Hrs
   **Semesters Offered:** Variable
   A multidisciplinary approach to the study of the effects of U.S. institutions on Chicanos; including the relationship between institutions and the nature of inequality in the U.S. and the ways political institutions affect the degree of political socialization of Chicanos.
   [CSU; UC; CSU-GE, AREA D3, IGETC, AREA 4]

ETH4. Chicano Culture (3)
   Lec 3 Hrs
   **Semesters Offered:** Variable
   A multidisciplinary approach to the study of the Chicano experience and culture as expressed in everyday life. The course includes a discussion of Chicano values, norms, language, and belief systems; and the diversity of the Chicano experience.
   [CSU; UC; CSU-GE, AREA D3, IGETC, AREA 4]

ETH5. Chicano Politics and the American Political System (3)
   Lec 3 Hrs
   **Semesters Offered:** Variable
   A survey of U.S. and California political institutions, including the U.S. Constitution as it relates to Chicanos. Contemporary events in politics at the local, state and national level will be presented from a Chicano perspective. Chicano organizations, political models, ideology, political participation, and leadership will be studied. The role of race, class, immigration status, sex, gender, identity and the struggle for social justice, equality and political participation will be examined. The role of the media and polling will also be examined. Not open to students who have completed POL-5 with a grade of “C” or better.
   [CSU; UC; CSU-GE, AREA D3, D8; IGETC, AREA 4]

ETH 6, La Chicana (3)
   Lec 3 Hrs
   **Semesters Offered:** Variable
   A survey of La Chicana in American society as viewed through a historical and sociological perspective including a discussion of her role in Chicano culture, family, religion, education, and economics. Contemporary problems and conditions will be considered.
   [CSU; UC; CSU-GE, AREA D3, D4; IGETC, AREA 4]

ETH 12. Chicano Cinema (3)
   Lec 3 Hrs
   **Semesters Offered:** Variable
   A survey of the experiences of Chicanos in the United States including Chicano culture, identity, resistance, social reality and history as portrayed in film and video. A series of films, including Hollywood commercial and Chicano made films, will be screened as part of an analysis of Chicano images and their impact on American popular culture.
   [CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3]

ETH 25. American Indian Literature (3)
   **Prerequisite:** Eligibility for English 1A.
   Lec 3 Hrs
   **Semesters Offered:** Variable
   Introduction to American Indian literature from the oral tradition to contemporary authors such as Momaday, Erdrich and Silko. The course focuses on literary themes and issues concerning the mythology, heritage, race, traditions, and culture of American Indians. ETH 25 is identical to ENG 25, American Indian Literature. ETH 25 is not open to students who have completed ENG 25 with a grade of "C" or better.
   [CSU; UC; CSU-GE, AREA D3, IGETC, AREA 4]

ETH 30. Introduction to Teaching Ethnic Minority Children (3)
   Lec 1.5 Hrs; Lab 4.5 Hrs
   **Semesters Offered:** Variable
   Introduction to teaching techniques relevant to ethnic minority children in public education. Includes work in classroom under supervision of instructor.
   [CSU]

ETH 31. Teaching Ethnic Minority Children (3)
   **Prerequisite:** Ethnic Studies 30 with a grade of C or better.
   Lec 1.5 Hrs; Lab 4.5 Hrs
   **Semesters Offered:** Variable
   Introduction to classroom management, curriculum development and teaching strategies relevant to ethnic minority children in public education.
   [CSU]

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FAMILY and CONSUMER STUDIES

FCS14. Child Development (3)
Advisory: English 253 or eligibility for English 101.
Lec 3 Hrs
Semesters Offered: Variable
An examination of major developmental milestones for children, both typical and atypical, from conception through adolescence. Emphasis is on the interactions between maturational processes and environmental factors in the areas of physical, cognitive, and psychosocial development. Students will observe children and apply major developmental theories to evaluate and analyze characteristic of development from conception to adolescence.
[CSU; UC; CSU-GE, AREA E; IGETC, AREA 4]

FCS22. Essentials of Nutrition (3)
Lec 3 Hrs
Semesters Offered: Variable
Basic nutrition concepts with an emphasis on practical application. Required for LVN applicants; suggested for ECE majors and general public.
[CSU]

FCS23. Nutrition (3)
Lec 3 Hrs
Semesters Offered: Variable
Nutritional needs throughout the life cycle. Chemical composition of nutrients and their utilization in the body. Principles of weight control. Required for nursing and Family and Consumer Studies majors. Completion of CHM 60 (or CHM 22 or one year of high school chemistry), BIO 6, and Math 201 are recommended.
[CSU; UC; CSU-GE, AREA E]

FRN1. Elementary French I (5)
Pass/No Pass Option
Lec 5 Hrs
Semesters Offered: Variable
Beginning course of lessons acquainting the student with the basic structures and pronunciation of French by practice in listening, speaking, reading and writing through structured lessons that include cultural components in the foods, lifestyles, arts, history and literature of French speaking peoples.
[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 6]

FRN2. Elementary French 2 (5)
Pass/No Pass Option
Prerequisite: Completion of FRN 1 or two years of high school French. All prerequisites must be completed with a grade of C or better.
Lec 5 Hrs
Semesters Offered: Variable
Continued emphasis on oral communication in French, however, with more readings on French-speaking cultures around the world. Introduction to French songs, poetry, and films. It is strongly recommended that the continuity of the study of French not be interrupted.
[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 6]

FRN3. Intermediate French (4)
Pass/No Pass Option
Prerequisite: French 2 or three years of high school French or its equivalent, or demonstration of language competency to level. All prerequisites must be completed with a grade of C or better.
Lec 4 Hrs; Lab 1 Hr
Semesters Offered: Variable
[CSU; UC; CSU-GE, AREA C2, IGETC, AREA 6]

FRN4. Intermediate French (4)
Pass/No Pass Option
Prerequisite: French 3 or four years of high school French or its equivalent, or demonstration of language competency to level. All prerequisites must be completed with a grade of C or better.
Lec 4 Hrs; Lab 1 Hr
Semesters Offered: Variable
A continuation of French 3. A greater emphasis on practical applications of the language. Readings of short stories, novels, plays. Special units on art, history, politics and geography of French speaking countries.
[CSU; UC; CSU-GE, AREA C2, IGETC, AREA 6]

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HEALTH EDUCATION

HED2. Individual Health (3)  Lec 3 Hrs  
Semesters Offered: Variable  
Advisory: Individual Health Students must have basic computer skills for operating Microsoft Word and e-mail, including sending attachments and files. Students also need access to the Internet and must have adequate hardware and software capabilities. Access to computers is also available at the Hartnell College Library/LRC. Individual health status and its relationship to community and national health problems.

HED6. Multicultural Health Beliefs (3)  Lec 3 Hrs  
Semesters Offered: Variable  
Multicultural health beliefs is designed to assist the student develop an awareness of the cultural aspects of health beliefs and the influence of culture on health beliefs and behaviors. Special attention will be given to exploring how ethnicity, culture of origin, and social-economic status influence health and quality of life, particularly among Latinos, African-Americans, Asian-Americans, Native Americans and European-Americans in the United States.  
[CSU; CSU-GE, AREA E]

HED55. Health Education-Adv First Aid (3)  Lec 3 Hrs  
Semesters Offered: Variable  
Advanced fundamentals of first aid that will include adult, child and infant CPR, bandaging, splinting, and responding to emergencies. Course parallels First Aid Responding to Emergencies from the American Red Cross with certificates given to those students who qualify.  
[CSU; UC]

HED60. Alcohol/Drug Awareness (3)  Lec 3 Hrs  
Semesters Offered: Variable  
Basic information on the physiological and psychological effects of alcohol and other drugs (legal and illegal), and the social, economic and medical consequences of chemical dependency. Other topics discussed are the classification of drugs, the historical perspectives of drug use, and the adverse effects of use, abuse, and addiction.  
[CSU]

HED62. Introduction to Alcohol/Drug-Use Prevention (3)  Lec 3 Hrs  
Semesters Offered: Variable  
Course provides a historical, cultural, and psycho-sociological perspective on the use and abuse of illicit and licit drugs with a particular emphasis on alcohol and tobacco use. Focus is on the motivation, social implications, medical ramifications, and legal consequences of drug use. A strong emphasis is placed on the contemporary socio-scientific knowledge and research as applied to prevention and treatment.  
[UC; CSU]

HEALTH INFORMATION TECHNOLOGY

HIT180. Medical Terminology (3)  
Advisory: ENG-101 with a grade of "C" or better.  
Lec 3 Hrs  
Semesters Offered: Variable  
The study of medical vocabulary with emphasis on principles of word construction, pronunciation, and word recognition associated with anatomical, diagnostic, symptomatic, and operative terms relating to individual body systems. The use of medical dictionaries and other references is stressed. A basic introduction to anatomy and physiology is also included. Not open to students who have completed BUS-180 with a grade of "C" or better.

HIT186. Medical and Insurance Billing (3)  
Advisory: ENG-101 with a grade of "C" or better.  
Lec 3 Hrs  
Semesters Offered: Variable  
The study of managed health care with an emphasis on medical billing and the accurate completion of claims forms for major nationwide medical insurance programs. Includes the importance of the integration of the health system, including federal, state and private medical insurance programs. Not open to students who have completed BUS-186 with a grade of "C" or better.

HIT187. Fundamentals of CPT Coding (3)  
Advisory: ENG-101 with a grade of "C" or better.  
Lec 3 Hrs  
Semesters Offered: Variable  
An introduction to the CPT (Current Procedural Terminology) manual and in-depth study of the sections contained in the medical code set. Emphasis on body systems in relationship to the CPT codes, along with anatomy, terminology, and procedures; focus on the correct way to code medical procedures. Not open to students who have completed BUS-187 with a grade of "C" or better.

HIT188. Fundamentals of ICD-9-Coding (3)  
Advisory: ENG-101 with a grade of "C" or better.  
Lec: 3 Hrs  
An introduction to the ICD-9-CM Coding (International Classification of Diseases, 9th Revision, Clinical Modification) manual and in-depth study of Volume 1 (Diseases: Tabular List), Volume 2 (Diseases: Alphabetical Index), and Volume 3 (Procedures: Tabular List and Alphabetic Index). Emphasis on the format and content of the volumes and use of the manual to locate codes for diseases and illnesses. Not open to students who have completed BUS-188 with a grade of "C" or better.

HIT189. Advanced Coding Applications (4)  
Prerequisite: BUS/HIT-187 and BUS/HIT-188 with a grade of "C" or better.  
Advisory: BUS/HIT-198 and BIO-18.  
Lec 4 Hrs  
Semesters Offered: Variable  
Advanced medical coding for addressing more complex issues related to the ICD-9-CM and HCPCS/CPT coding. Focuses on using case studies, mock records, and applying learning at a higher coding skill level. Computerized encoders and groupers emphasized. Not open to students who have completed BUS-189 with a grade of "C" or better.

HIT199. Introduction to Health Information Systems Management (3)  
Lec 3 Hrs  
Semesters Offered: Variable  
Introduction to the organization of healthcare delivery and overview of the profession. The study of the regulatory issues, content, use, and structure of health care data and data sets as they relate to long term care facilities, home health agencies, hospices, mental health facilities, ambulatory care, physicians offices and others. Emphasis on standards and development of content, format, evaluation, completion, and handling of medical records. Includes number of filing systems and methods, registries and indexes, and forms and screen design. Not open to students who have completed BUS-198 with a grade of "C" or better.
HES10. Introduction to the Clinical Laboratory Profession (1)
Lec 1 Hr
Semesters Offered: Variable
Introduces the student to the functions and duties of a Medical Laboratory Technician (MLT) and compares and contrasts these duties to the Clinical Medical Laboratory Scientist (CLS). The student will be introduced to clinical laboratory safety issues, regulatory agencies, infection control policies, and professional responsibilities relative to other departments of health care. The student will study medical terminology, patient's bill of rights, and professional standards of the clinical laboratory technician, proper phlebotomy technique and specimen processing, and study computer skills to data management systems within the clinical laboratory and on-line courses.

[CSU]

HES11. Clinical Laboratory Math (1)
Lec 1 Hr
Semesters Offered: Variable
Teaches practical situations encountered in the clinical laboratory to include; accurately solving metric system conversions, solution preparation and pH determinations, applying Beer's law to concentration determinations, correctly calculating statistical data as related to quality control and quality assurance.

[CSU]

HES20. Clinical Urinalysis (1)
Prerequisite: HES 10, 11 with a grade of C or better.
Corequisite: HES 20L
Advisory: Admission to MLT Program. Completion of HES 73 within six months of completing this course.
Lec 1 Hr
Semesters Offered: Variable
Teaches the student the various properties and constituents of urine. Emphasis is placed on the interpretation of theory and methodology of quantitative and qualitative clinical analysis of urine. The student will be taught to accurately compare results of analysis to normal and abnormal function of the kidney.

[CSU]

HES20L. Clinical Urinalysis Lab (.5)
Prerequisite: HES 10 and HES 11 with a grade of C or better.
Corequisite: HES 20
Advisory: Admission to MLT Program. Completion of HES 73 within six months of completion of this course.
Lab 1.5 Hr
Semesters Offered: Variable
Teaches the student the various properties and constituents of urine via ‘hands’ learning. Emphasis is placed on the interpretation and handling of urine specimens and their accompanying requisitions. The students will be taught to examine urine physically, chemically, and microscopically and compare clinical values as related to the physiology of the urinary system in health and disease.

[CSU]

HES21. Clinical Immunohematology (3)
Prerequisite: HES 10 and 11 with a grade of C or better.
Corequisite: HES 21L
Advisory: Completion of HES 23 within six months of completing this course.
Lec 3 Hrs
Semesters Offered: Variable
Introduces the student to the basic principles of antigen and antibody reactions included in blood grouping and typing, compatibility testing and serological procedures. Introduces serological and immunohematology procedures measured qualitatively and quantitatively in today’s clinical laboratory. Completion of this course is required prior to enrolling in the clinical rotation in Immunology/Immunohematology, HES 23. This course, HES 21L requires concurrent enrollment in HES 21L. Admission to the MLT program is required prior to registration.

[CSU]

HES21L. Clinical Immunohematology Lab (1)
Prerequisite: HES 10 and 11 with a grade of C or better.
Corequisite: HES 21
Advisory: Completion of HES 23 within six months of completing this course.
Lab 3 Hrs
Semesters Offered: Variable
Introduces the student to the basic principles of antigen and antibody reactions included in blood grouping and typing, compatibility testing and serological procedures by performance in a student lab environment. Introduces serological and immunohematology procedures and techniques to measure analytes qualitatively and quantitatively. Completion of this course is required prior to enrolling in the clinical rotation in Immunology/Immunohematology, HES 23.

[CSU]

HES23. Clinical Immunology/Immunohematology Practicum (4)
Prerequisite: HES 21 and 21L with a grade of C or better.
Lab 12 Hrs
Semesters Offered: Variable
Provides entry-level clinical laboratory practice/experience in serology and blood banking. Emphasis is placed on technique, accuracy, and precision. Different instrumentation will be introduced as well as bench/manual methods. Competence will be evaluated based on final clinical evaluations.

[CSU]

HES40. Clinical Chemistry I (3)
Prerequisite: HES 10 and 11 with a grade of C or better.
Lec 3 Hrs
Semesters Offered: Variable
General laboratory principles and specific basic instrumentation methodologies used in the clinical lab. After review of laboratory math, and a reintroduction to quality control and quality assurance; the student will be introduced to variables of the pre-analytical phase, identify electrolytes and trace elements and their relationship to acid base balance. The student will also be introduced to the characteristics important and relevant to enzyme kinetics and define various enzymes clinically assayed. Correlating test results with disease states will be demonstrated. All of the above will be taught in a manner consistent with OSHA standards. HES 41 and HES 41L are taken the semester following successful completion of HES 40 and HES 40L.

[CSU]

HES40L. Clinical Chemistry I Lab (1)
Prerequisite: HES 10 and HES 11 with a grade of C or better. Admission to the MLT program.
Corequisite: HES 40
Lab 3 Hrs
Semesters Offered: Variable
Teaches general laboratory principles and specific basic instrumentation methodologies used in basic clinical chemistry analysis. After review of laboratory math, and a reintroduction to quality control and quality assurance, the student will be introduced to variables of the preanalytical phase, characteristics important to quality lab technique and safety. Correlating test results with disease states will be accomplished. Admission to the MLT program and concurrent registration in HES 40 is required.

[CSU]

HES41. Clinical Chemistry II (3)
Prerequisite: HES 40, HES 40L with a grade of C or better.
Corequisite: HES 41L
Advisory: Completion of HES 43 within six months of completing this course is recommended.
Lec 3 Hrs
Semesters Offered: Variable
Teaches relationships between the endocrine system and analytes assayed for in the clinical lab, including tumor markers, therapeutic drugs, and compounds studied in toxicology. The student will be introduced to vitamins assayed and correlate their clinical significance. The student will correlate liver, kidney, and pancreatic function with test results and compare with states of health and disease. The function and laboratory analysis of various body fluids including effusions, spinal fluid, and synovial fluid will be included. Concurrent registration with HES 41L and completion of HES 43 within 6 months of this course is recommended.

[CSU]

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HES41L. Clinical Chemistry II Lab (1)
Prerequisite: HES 40, HES 40L with a grade of C or better.
Corequisite: HES 41
Advisory: Completion of HES 43 within 9 months is recommended after completion of this course and HES 41.
Lab 3 Hrs
Semesters Offered: Variable
Intermediate to advanced laboratory principles and techniques used in clinical chemistry analysis. The student will perform and study tests of the endocrine system, therapeutic drug assays and compounds, and other clinical chemistry tests specific to special chemistry department test menus. Highly automated instrumentation will be studied and used to demonstrate correct quality control, maintenance and clinical operation. This course is taken the following semester after successful completion of HES 40 and 40L. Concurrent registration in HES 41 is required.

HES43. Clinical Chemistry Practicum (5)
Prerequisite: HES 40, HES 40L, HES 41, and HES 41L with a grade of C or better.
Lab 15 Hrs
Semesters Offered: Variable
Provides entry-level clinical laboratory practice/experience in general and special chemistry. Emphasis is placed on techniques, accuracy and precision. Different instrumentation will be introduced as well as bench/manual methods. Competence will be evaluated based on final clinical evaluation.

HES53. Emergency Medical Technician 1 (Ambulance) (5.5)
Prerequisite: HES-120 with a grade of "C" or better or valid Health-Care Provider CPR card.
Lec 4.5 Hrs; Lab 3.0 Hrs
Semesters Offered: Variable
The EMT-1 course follows the state-mandated curriculum. The classroom setting and clinical rotations provide opportunities to gain proficiency in the theoretical knowledge and in the application of basic life support skills required to function as an EMT. Upon completion of course requirements, student will be issued a Course Completion Certificate that is required for EMT-1A or EMT-INA certification through the Monterey County Department of Health.

HES60. Clinical Microbiology (3)
Prerequisite: HES 10, 11 with a grade of C or better.
Corequisite: HES 60L
Advisory: Admission to MLT Program. Completion of HES 63 within six months of completing this course.
Lec 3 Hrs
Semesters Offered: Variable
Microorganisms of medical microbiology with emphasis on the characteristics of clinically significant microorganisms and their biochemical profile, media for isolation, and identification methods for selected pathogens. The student will be introduced to identification methods, theories, and techniques used in basic bacteriology parasitology, and mycology. Emphasizes routine organism identification.

HES60L. Clinical Microbiology Lab (1)
Prerequisite: HES 10, 11 with a grade of C or better.
Corequisite: HES 60
Advisory: Admission to MLT Program. Completion of HES 63 within six months after completing this course.
Lab 3 Hrs
Introduces the various techniques and safety procedures in clinical microbiology. Emphasizes the morphology and identification of common pathogenic organisms. Successful completion of this course and HES 60 is required to enroll in Clinical Microbiology Practicum, HES 63.

HES63. Clinical Microbiology Practicum (5)
Prerequisite: HES 60 and 60L with a grade of C or better.
Lab 15 hrs
Semesters Offered: Variable
Provides entry-level clinical laboratory practice/experience in microbiology. Emphasis is placed on technique, accuracy, and precision. Different instrumentation will be introduced as well as numerous bench/manual techniques. Competence will be evaluated based on final clinical evaluations.

HES67. Clinical Hematology (3)
Prerequisite: HES 10 and 11 with a grade of C or better.
Corequisite: HES 70L
Advisory: Completion of HES 73 within six months of completing this course.
Lec 3 Hrs
Semesters Offered: Variable
This course presents the origin of the various types of blood cells with emphasis on the red and white blood cells. The student will learn about human hematological disorders and classify these based on clinical laboratory findings. Admission to MLT Program is necessary prior to registration and completion of HES 73 within six months of completing this course is required. This course, HES 70, is to be taken concurrently with HES 70L.

HES67L. Clinical Hematology Lab (1)
Prerequisite: HES 10 and 11 with a grade of C or better.
Corequisite: HES 70
Advisory: Admission to MLT Program. Completion of HES 73 within six months of completing this course.
Lab 3 Hrs
Introduces the various techniques and safety procedures in clinical hematology. Emphasizes the morphology and identification of common human blood cells. Successful completion of this course and HES 70 is required to enroll in Clinical Hematology Practicum, HES 73.

HES68. Clinical Coagulation (1)
Prerequisite: HES 10 and HES 11 with a grade of C or better.
Corequisite: HES 71L
Advisory: Admission to MLT Program. Completion of HES 73 within six months of completing this course.
Lec 1 Hr
Semesters Offered: Variable
This course presents an overview of the hemostasis process and coagulation disorders.

HES71. Clinical Coagulation (1)
Prerequisite: HES 10, 11 with a grade of C or better.
Corequisite: HES 71
Advisory: Admission to MLT Program. Completion of HES 73 within six months of completing this course.
Lec 1.5 Hrs
Semesters Offered: Variable
This course is the laboratory component of HES 71, Clinical Coagulation, and must be taken concurrently.

Advisory: Students taking online courses must have basic computer skills for operating Microsoft Word and e-mail, including sending attachments and files. Students also need access to the Internet and must have adequate hardware and software capabilities. Access to computers is also available at the Hartnell College Library/LRC.
HEALTH SERVICES

HES73. Clinical Hematology, Coagulation and Urinalysis Practicum (5)
Prerequisite: HES 20, HES 20L, HES 70, HES 70L, HES 71, and HES 71L with a grade of C or better.
Lab 15 Hrs
Semesters Offered: Variable
Provides entry-level clinical laboratory practice/experience in hematology, coagulation, and urinalysis. Emphasis is placed on technique, accuracy, and precision. Different instrumentation will be introduced as well as bench/manual methods. Competence will be evaluated based on final clinical evaluations.

[CSU]

HES98. Hazardous Materials & Industrial Safety (1)
Lec 1 Hr
Semesters Offered: Variable
A basic course in all aspects as it relates to industry. The course will cover the following topics: Hazardous Materials as it pertains to the specific trades. Examples are construction, welding, auto repair, electronics, auto collision repair and machine technology, health care services, personal protective equipment, materials handling and storage, industrial hygiene, safety inspections, and general industrial safety of the proper use of tools and machines.

[CSU]

HES101. Scientific and Professional Basis of Health Care (5)
Lec 5 Hrs
Semesters Offered: Variable
The study of the fundamental knowledge necessary to provide health care in a variety of settings and occupations. Basic understanding of body structures and functions and the related language needed to communicate them will be presented. Patient rights and professional roles in assuring them will be explored. Legal and ethical aspects of health care will also be studied. Designed for pre-health professions students.

HES110A. Theory in Phlebotomy Techniques (2.5)
Prerequisite: HES 10 with a grade of C or better.
Corequisite: HES 110B
Lec 2.5 Hrs
Semesters Offered: Variable
This is a course in phlebotomy concepts and techniques. The topics covered will be blood drawing, specimen requirements, safety, infection control, data collection/clerical, patient/specimen identification, communication skills, customer service, patient satisfaction, non-blood specimen collection, quality, productivity, compliance and ethics, appearance/dress code.

HES110B. Practicum in Phlebotomy Techniques (1)
Pass/No Pass Only
Corequisite: HES 110A - Theory of Phlebotomy Techniques
Lab 3 Hrs
Semesters Offered: Variable
This is a practicum in blood collection techniques by venipuncture and capillary blood collection in a clinical setting. The student must demonstrate clinical readiness by passing a written and practical examination prior to clinical placement.

HES120. Foundations of Health Care (1)
Pass/No Pass Only
Lec 1 Hr
Semesters Offered: Variable
Provides the student with basic knowledge required of the health care profession in the clinical setting, including standard precautions for blood borne pathogens and professional aspects of the clinical experience. Upon successful completion, students will acquire Basic Life Support for Health Care Providers certification. A fee will be required for the CPR card.

HES130A. Certified Nursing Assistant (5)
Prerequisite: HES 120 with a grade of C or better.
Lec 3 Hrs; Lab 6 Hrs
Semesters Offered: Variable
This is a beginning course in health care which emphasizes basic patient care skills for clients in skilled nursing facilities. Classroom instruction includes basic nursing skills, communication, equipment management, and infection control. Students gain hands-on-experience during clinical activities. Once enrolled, students must undergo a health record physical examination by a health care provider, tuberculosis bacillus screening, and fingerprinting using the Live Scan method.

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HIS4A. Western Civilization A (3)  
Semesters Offered: Variable  
A survey of Western Civilization from prehistoric times through the Protestant Reformation of the 16th Century, with special emphasis placed on the global relationships which shaped the intellectual, political, economic and social institutions of the west.  
[CSU; UC; CSU-GE, AREA D5, D6, IGETC AREA 3]

HIS4B. Western Civilization B (3)  
Semesters Offered: Variable  
A survey of Western Civilization from the rise of secular and scientific institutions in the 16th Century to the present, with special emphasis placed on the global relationships which shaped the intellectual, political, economic and social institutions of the west.  
[CSU; UC; CSU-GE, AREA D6, IGETC AREA 3]

HIS5A. World History A (3)  
Semesters Offered: Variable  
An examination of world history from the ancient era to 1500 from a global perspective. Focuses on the unique character and progress of civilizations in different parts of the world including China, India, Europe, Africa and the Americas. Stresses the connections that exist between cultures in and across time periods including points of comparison between individual civilizations.  
[CSU; UC; CSU-GE, AREA C2, D6; IGETC, AREA 3B, 4]

HIS5B. World History B (3)  
Semesters Offered: Variable  
An examination of world history from the 1500s to the present from a global perspective focusing on the unique character and progress of civilizations in different parts of the world including China, India, Europe, Africa and the Americas stressing the connections that exist between cultures in and across time periods including points of comparison between individual civilizations.  
[CSU; UC; CSU-GE, AREA C2, D6; IGETC, AREA 3B, 4]

HIS6. History of Mexico (3)  
Semesters Offered: Variable  
A survey of the history of Mexico from the Indigenous period to the present with emphasis on the political, economic, cultural, and social institutions of Mexico.  
[CSU; UC; CSU-GE, AREA C2, D6; IGETC, AREA 3B, 4]

HIS10. History of California (3)  
Advisory: See Below.  
Semesters Offered: Variable  
The history of California from the Indigenous period to the present focusing on the experiences of Peoples of Color including the Indigenous People of California, Chicanos/Latinos, African Americans, Asian Americans and Pacific Islanders. Local history considered in depth. This course may be offered on an outline platform such as ecollege.  
[CSU; UC; CSU-GE, AREA D6, IGETC AREA 3]

HIS17A. United States History A (3)  
Semesters Offered: Variable  
A survey of United States history from the Indigenous period through the Civil War, including the development of the major political, social, and economic institutions and ideals in the entire area which is now the United States, with a special emphasis on the roles of major ethnic and social groups.  
[CSU; UC; CSU-GE, AREA D6, IGETC AREA 3]

HIS17B. United States History B (3)  
Semesters Offered: Variable  
A survey of United States history from Reconstruction to the present, including the development and evolution of the major political, social, and economic institutions and ideals in the entire area which is now the United States, with a special emphasis on the roles of major ethnic and social groups.  
[CSU; UC; CSU-GE, AREA D6, IGETC AREA 3]

HIS17C. United States History C (3)  
Semesters Offered: Variable  
A survey of United States history from Reconstruction to the present, including the development and evolution of the major political, social, and economic institutions and ideals in the entire area which is now the United States, with a special emphasis on the roles of major ethnic and social groups.  
[CSU; UC; CSU-GE, AREA D6, IGETC AREA 3]

HIS17D. United States History D (3)  
Semesters Offered: Variable  
A survey of United States history from Reconstruction to the present, including the development and evolution of the major political, social, and economic institutions and ideals in the entire area which is now the United States, with a special emphasis on the roles of major ethnic and social groups.  
[CSU; UC; CSU-GE, AREA D6, IGETC AREA 3]

HIS21. Social and Political Histories of the United States (4)  
Semesters Offered: Variable  
A supervised program of independent research focusing on a pluralistic and multicultural interpretation of American society and the evolution of the major political and social institutions of the United States. Attention is given to regional differences, the role of immigration in the formation of American society and race, ethnicity, culture, class, sex, gender, and environment in the evolution of U.S. politics and social life.  
[CSU; UC; CSU-GE, AREA D6, D8; IGETC, AREA 4]

HIS40. History of Women in the U.S. (3)  
Semesters Offered: Variable  
A survey of women in American history from the Indigenous period to the present in the entire area which is now the United States with special emphasis on the roles of women in the major ethnic and social groups.  
[UC; CSU-GE, AREA C2; IGETC, AREA 3 & 4]

HIS45. Special Projects (1-3)  
Semesters Offered: Variable  
A supervised program of independent research and study into a particular field of history. Completion of the concurrent enrollment in History 4A, 4B, 17A, or 17B.  
[CSU]

HIS46A. Race and Ethnicity in American History A (3)  
Semesters Offered: Variable  
A survey of the historical, social, political, economic, and cultural experiences of African Americans, Chicanos/Latinos, Asian Americans, Pacific Islanders, and Native Americans in the United States from the Indigenous period through the Civil War.  
[CSU; UC; CSU-GE, AREA D3, D6; IGETC, AREA 4]

HIS46B. Race and Ethnicity in American History B (3)  
Semesters Offered: Variable  
A survey of the historical, political, social, economic, and cultural experiences of African Americans, Chicanos/Latinos, Asian Americans, Pacific Islanders, and Native Americans in the United States from the Indigenous period through the Civil War.  
[CSU; UC; CSU-GE, AREA D3, D6; IGETC, AREA 4]

HIS47. Religions of the World (3)  
Semesters Offered: Variable  
A survey of the world’s major religions with emphasis on the origins, historical developments and basic teachings of Indigenous religious beliefs, Hinduism, Buddhism, Confucianism, Judaism, Christianity and Islam and their political, social and economic impact on the world.  
[CSU; UC; CSU-GE, AREA C2, D6; IGETC AREA 3]

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**HISTORY**

**HIS48. African-American History and Culture (3)**
**Pass/No Pass Option**
**Lec 3 Hrs**
**Semesters Offered:** Variable
A study of the historical origins and development of Afro-American people in the U.S.A. today. Specific emphasis is given to the development, basis, and make-up of several important social concepts and institutions in Black America.
[CSU; UC; CSU-GE, AREA D6; IGETC AREA 3]

**HIS49A. Chicano History A (3)**
**Lec 3 Hrs**
**Semesters Offered:** Variable
A history of the Chicano experience and culture from the Indigenous cultures of Mexico, and the Spanish, Mexican and United States periods to 1848.
[CSU; UC; CSU-GE, AREA D6; IGETC AREA 3]

**HIS49B. Chicano History B (3)**
**Lec 3 Hrs**
**Semesters Offered:** Variable
A survey of Chicano history and culture from 1848 to the present emphasizing the social, cultural, political, and economic roles of Chicanos in the United States.
[CSU; UC; CSU-GE, AREA D6; IGETC AREA 3]

**HIS51. Women in History (3)**
**Lec 3 Hrs**
**Semesters Offered:** Variable
An exploration of the cultural, religious, political and economic role played by women in various civilizations since ancient times.
[CSU; UC; CSU-GE, AREA D6; IGETC, AREA 3]

**INSTRUCTIONAL AIDE**

**INS250. Tutor Training (.3-1)**
**Pass/No Pass Only**
**Semesters Offered:** Variable
Course provides an introduction to the theories and methods of effective tutoring, including interviewing, identification of learning problems, the study and development of effective communication techniques, and the use of learning theories and methods of effective individualized and group instruction. Opportunities will be provided for evaluation of and experience in tutoring situations. The course is offered on an open entry/open exit basis.

**INS301. Supervised Tutoring (0)**
**No Credit**
**Semesters Offered:** Variable
Course provides tutoring through the Academic Learning Center’s Tutorial Program. Course offers opportunities for study skills assessment and development, individual and group instruction under peer tutors, and other assistance to help students fulfill their course requirements for a variety of college courses.
Counselor or instructor referral required.

**INTERDISCIPLINARY STUDIES**

**IDS1. Boronda Study Group (3)**
**Pass/No Pass Only**
**Lec 3 Hrs**
Preparatory study of the host site selected for the annual Boronda Study Travel Program. Study of the history, culture and artistic traditions of the site or country.
[CSU]

**IDS2. Boronda Study Group – Life and Culture (3)**
**Pass/No Pass Only**
**Prerequisite:** Completion of IDS 1 with a grade of C or better.
**Lec 3 Hrs**
**Advisory:** Selection by the Boronda Scholarship Committee.
A survey of the history, culture and civilization of the host country with emphasis on art, music, and literature.

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JPN10. Japanese Language and Culture I (5)
Pass/No Pass Option
Lec 5 Hrs
Semesters Offered: Variable
Designed for beginners only, this course introduces hiragana and katakana, essential spoken Japanese communication skills, and basic elements of Japanese language and culture. Emphasizing pronunciation and grammar, it covers a variety of conversational situations essential to successful interaction with Japanese speaking people. Students learn basic survival Japanese phrases and useful expressions plus important elements of Japanese culture and customs.
[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 6]

JPN11. Japanese Language and Culture II (5)
Pass/No Pass Option
Prerequisite: Japanese 10 with a grade of "C" or better.
Lec 5 Hrs
Semesters Offered: Variable
Continuation of Japanese Language and Culture I with further development of listening, speaking, reading and writing skills. This course introduces new sentence patterns as well as a variety of new conversational situations in a contemporary Japanese context. The student should have acquired basic Japanese writings of hiragana and katakana before enrolling in this course.
[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3B, 6]
LIB2. Introduction to Using the Academic Library (1)  
**Pass/No Pass Option**  
**Self-Paced:** 3 Hrs  
**Semesters Offered:** Variable  
Introduces students to academic library resources and basic library skills. Includes print, non-print, and electronic sources in self-paced instructional lessons.  
[CSU; UC]

LIB5. Information Competency in the Sciences and Applied Technology (1)  
**Pass/No Pass Option**  
**Advisory:** See Below.  
**Lec 1 Hr**  
**Semesters Offered:** Variable  
An introduction to the information competency skills required to locate, evaluate and cite materials in the sciences and applied technology. Students will utilize print, Internet and other electronic sources. May be offered online.  
[CSU; UC]

LIB6. Information Competency in the Social Sciences (1)  
**Pass/No Pass Option**  
**Advisory:** See Below.  
**Lec 1 Hr**  
**Semesters Offered:** Variable  
An introduction to the information competency skills required to locate, evaluate and cite materials in the Social Sciences. Students will utilize print, Internet and other electronic sources. Maybe offered online.  
[CSU; UC]

LIB7. Information Competency in Literature and the Fine Arts (1)  
**Pass/No Pass Option**  
**Advisory:** See Below.  
**Lec 1 Hr**  
**Semesters Offered:** Variable  
An introduction to the information competency skills required to locate, evaluate and cite materials in literature and the fine arts. Students will utilize print, Internet and other electronic sources. May be offered online.  
[CSU; UC]

LIB45. Special Projects (.5-3)  
**Pass/No Pass Option**  
**Advisory:** See Below.  
**Semesters Offered:** Variable  
This is a program of specific study for students who are interested in investigating topics, problems or projects beyond the scope of a standard Library course. This course may be taken three times with different or advanced content for a maximum of nine units.  
[CSU]

LIB90. Internet Literacy (3)  
**Advisory:** See Below.  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
Online course that examines the organizational structure, resources and uses of the Internet. Includes exploration of visible and invisible Web resources, online research strategies, information competency, Web page design and publishing, ethical use of technology and the Internet, and emerging Internet technologies. Not open to students who have completed CSS-90 or LBT-90.  
[CSU]
MAT2. Calculus for Managerial, Life, and Social Sciences (4)
Prerequisite: Math 123 with a grade of "C" or better.
Lec 4 Hrs
Semesters Offered: Variable
Linear and quadratic models, introduction to limits, the derivative and its applications, the integral and its applications, methods of integration, and differential equations. Applications from the life, management, and social sciences are considered throughout the course. This course is primarily for students in business, social sciences, and biological sciences.
[CSU; UC; CSU-GE, AREA B4; IGETC, AREA 2]

MAT3A. Analytic Geometry and Calculus I (4)
Prerequisite: Math 24 and Math 25 with a grade of "C" or better.
Lec 4 Hrs
Semesters Offered: Variable
The first course in a three-course series. A study of limits, differentiation, differentials, integration, and applications of differentiation and integration. This course is primarily for students majoring in mathematics, physics, chemistry, biology, computer science, and engineering.
[CSU; UC; CSU-GE, AREA B4; IGETC, AREA 2]

MAT3B. Analytic Geometry and Calculus II (4)
Prerequisite: MAT-3A with a grade of "C" or better.
Lec 4 Hrs
Semesters Offered: Variable
The second course in a three-course series. A study of techniques of integration, applications of integration, parametric equations, polar coordinates, infinite series, and an introduction to differential equations.
[CSU; UC; CSU-GE, AREA B4; IGETC, AREA 2]

MAT3C. Analytic Geometry and Calculus III (4)
Prerequisite: Mathematics 3B with a grade of "C" or better.
Lec 4 Hrs
Semesters Offered: Variable
The third course in a three-course series. A study of functions of several variables, vectors, surfaces, vector-valued functions, partial differentiation, multiple integrals, and topics in vector calculus.
[CSU; UC; CSU-GE, AREA B4; IGETC, AREA 2]

MAT4. Linear Algebra (3)
Prerequisite: Mathematics 3B with a grade of "C" or better.
Lec 3 Hrs
Semesters Offered: Variable
A study of matrices, linear systems of equations, determinants, vector spaces, subspaces, linear independence, linear transformations, eigenvalues and eigenvectors.
[CSU; UC; CSU-GE, AREA B4; IGETC, AREA 2]

MAT5. Differential Equations (3)
Prerequisite: Mathematics 3C with a grade of "C" or better.
Lec 3 Hrs
Semesters Offered: Variable
Differential equations of the first, second, and higher order, simultaneous, linear, homogeneous equations; solutions by power series, numerical methods, Fourier series, LaPlace transforms; applications.
[CSU; UC; CSU-GE, AREA B4; IGETC, AREA 2]

MAT10. Math for Liberal Arts (3)
Prerequisite: Math 123 with a grade of "C" or better.
Lec 3 Hrs
Semesters Offered: Variable
An overview of fundamental concepts of modern mathematics for liberal arts students. Introduces non-science majors to a variety of mathematical ideas, methods, and historical trends. Core topics are logic, set theory, numerical systems, number systems, number theory, axiomatic theories and models, and methods of proof. Additional topics may include: history of mathematics, geometry, counting techniques, probability and statistics, and calculus concepts.
[CSU; UC; CSU-GE, AREA B4; IGETC, AREA 2]

MAT12. Number Systems (3)
Prerequisite: MAT-122 & MAT-123 with a grade of "C" or better.
Lec 3 Hrs
Semesters Offered: Variable
Intended primarily for prospective elementary school teachers. The emphasis is on problem solving strategies, the structure of mathematical systems, and the ideas underlying the common arithmetic algorithms taught to children. Topics include number theory, sets and relations, numerical systems, and geometric concepts.
[CSU; UC; CSU-GE, AREA B4; IGETC, AREA 2]

MAT13. Elementary Statistics (5)
Prerequisite: Math 123 with a grade of "C" or better.
Advisory: See Below
Lec 5 Hrs
Semesters Offered: Variable
A study of the measures of central tendency, dispersion and position, graph presentation, sampling, frequency distributions, linear correlation and regression, probability distributions, sample variability, statistical inferences, confidence intervals, Chi-Square tests, analysis of variance, and non-parametric tests. This course is primarily for students in business, social sciences, biological sciences, education and humanities. Use of technology, including graphing calculators or computers will be extensively integrated as a tool in the description and analysis of data.
[CSU; UC; CSU-GE, AREA B4; IGETC, AREA 2]

MAT16. Finite Mathematics (3)
Prerequisite: Math 123 with a grade of "C" or better.
Lec 3 Hrs
Semesters Offered: Variable
A study of sets and logic, probability, linear programming, finance and matrices with applications to business, social science, and computer sciences. This course is primarily for students in business, social science, and computer science.
[CSU; UC; CSU-GE, AREA B4; IGETC, AREA 2]

MAT24. Trigonometry (3)
Prerequisite: MAT 123: Intermediate Algebra with a grade of "C" or better or MAT 123L4: Intermediate Algebra with a grade of "C" or better
Advisory: MAT 122: Plane Geometry or students should be familiar with high school level Geometry.
Lec 3 Hrs
Semesters Offered: Variable
Trigonometric functions, inverse trigonometric functions and their graphs, solutions to right and oblique triangles, identities and conditional trigonometric equations, analytic trigonometry, introduction to vectors, and complex numbers. This course, along with MAT-25, is designed to prepare students for Calculus.
[CSU; CSU-GE AREA B4]

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### MATHEMATICS

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<th>Prerequisite</th>
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<td>MAT25</td>
<td>Pre-Calculus (4)</td>
<td>Prerequisite: Math 123 with a grade of C or better.</td>
<td>4 Hrs</td>
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<tr>
<td>MAT45</td>
<td>Special Projects (1-3)</td>
<td>Pass/No Pass Option</td>
<td>3 Hrs</td>
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<tr>
<td>MAT121</td>
<td>Elementary Algebra (5)</td>
<td>Prerequisite: Math 201 or BUS 151. with a grade of C or better or placement by Hartnell's Assessment.</td>
<td>5 Hrs</td>
</tr>
<tr>
<td>MAT121L1</td>
<td>Elementary Algebra (1.25)</td>
<td>Prerequisite: Math 201 or Bus 151. All prerequisites must be completed with a grade of C or better.</td>
<td>3.75 Hrs</td>
</tr>
<tr>
<td>MAT121L2</td>
<td>Elementary Algebra (1.25)</td>
<td>Prerequisite: Math 121L1 with a grade of C or better.</td>
<td>3.75 Hrs</td>
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<tr>
<td>MAT121L3</td>
<td>Elementary Algebra (1.25)</td>
<td>Prerequisite: Math 121L2 with a grade of C or better.</td>
<td>3.75 Hrs</td>
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<tr>
<td>MAT121L4</td>
<td>Elementary Algebra (1.25)</td>
<td>Prerequisite: Math 121L3 with a grade of C or better.</td>
<td>3.75 Hrs</td>
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<td>MAT123</td>
<td>Intermediate Algebra (5)</td>
<td>Prerequisite: MAT 121 (5 units) with a grade of C or better or placement by STAAR.</td>
<td>4.5 Hrs</td>
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<tr>
<td>MAT123L1</td>
<td>Intermediate Algebra (1)</td>
<td>Prerequisite: Math 121 (5 Units) with a grade of C or better.</td>
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<tr>
<td>MAT123L2</td>
<td>Intermediate Algebra (1)</td>
<td>Prerequisite: Math 123L1 with a grade of C or better.</td>
<td>3 Hrs</td>
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<tr>
<td>MAT123L3</td>
<td>Intermediate Algebra (1.5)</td>
<td>Prerequisite: Math 123L2 with a grade of C or better.</td>
<td>4.5 Hrs</td>
</tr>
<tr>
<td>MAT123L4</td>
<td>Intermediate Algebra (1.5)</td>
<td>Prerequisite: Math 123L3 with a grade of C or better.</td>
<td>4.5 Hrs</td>
</tr>
</tbody>
</table>

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MAT151L3. Technical Mathematics (1)
Prerequisite: Math 151L2 with a grade of C or better.
Lab 3 Hrs
Semesters Offered: Variable
Further study of technical mathematics. Topics include: Plane geometry, including angles, Pythagorean theorem, polygons, circles, area, perimeter, and circumference; basic trigonometry. A scientific calculator is used to assist in the solution of meaningful problems in technical fields. This is a course designed for students completing certificates in technical fields that do not require MAT-121, 122, or 123 or a math course numbered below 100.

MAT200L. Arithmetic of Whole Numbers (1)
Lab 3 Hrs
Semesters Offered: Variable
This course is designed for those students who need practice with basic addition facts and the multiplication table. Topics include: addition, subtraction, multiplication, and division of whole numbers, and order of operations. This course is offered as a self-paced course only.

MAT201. Pre-Algebra (3)
Lec 3 Hrs
Semesters Offered: Variable
The arithmetic of signed numbers, fractions, one-step and two-step equations, decimals, ratio and proportion problems, percent problems, and unit conversions. This course is designed for those students who do not meet the entrance requirements for Math 121 Elementary Algebra. Not open to students who have completed Math 201L2.

MAT201L1. Pre-Algebra (1)
Lab 3 Hrs
Semesters Offered: Variable
The first course in a three-course sequence that's equivalent to MAT 201. The arithmetic of integers, the arithmetic of fractions, exponents, the order of operations, perimeter, area, and volume. This course is designed for students who do not meet the entrance requirements for MAT 121. Not open to students who have completed MAT 201L2, MAT 201L2, or MAT 201L3 with a grade of "C" or better.

MAT201L2. Pre-Algebra (1)
Prerequisite: Completion of Math 201 with a grade of C or better.
Lab 3 Hrs
Semesters Offered: Variable
The second course in a three-course sequence that is equivalent to MAT 201. The solution of one-step and two-step equations, and the arithmetic of decimals. This course is designed for those students who do not meet the entrance requirements for Math 121. Not open to students who have completed MAT 201.

MAT201L3. Pre-Algebra (1)
Prerequisite: Completion of Math 201L2 with a grade of C or better.
Lab 3 Hrs
Semesters Offered: Variable
The third course in a three-course sequence that is equivalent to MAT 201. The arithmetic of ratio and proportion problems, percent problems, and unit conversions. This course is designed for those students who do not meet the entrance requirements for MAT 121. Not open to students who have completed MAT 201.

MAT205. Individualized Study I (.5)
Pass/No Pass Only
Lab 1.5 Hrs
Semesters Offered: Variable
A course for the student interested in reviewing and reinforcing specific computational skills and mathematical concepts within the scope of Math 201, Math 121 and/or Math 123. May be taken concurrently with one of the above-mentioned courses.

MAT206. Individualized Study II (.5)
Pass/No Pass Only
Lab 1.5 Hrs
A course for the students interested in reviewing and reinforcing mathematical concepts covered in Math 122, 10, 12, 13, 16, 24, 25, 2, 3A, 3B, 3C, 4 and/or 5. May be taken concurrently with one of the above-mentioned courses.

MAT301. GED/Mathematics (0)
NG
Lab 5 Hrs
A course for the student interested in reviewing and reinforcing mathematical content for number operations and number sense, measurement and geometry, data analysis, statistics and probability, and algebra. Focuses on comprehension, application, analysis, and synthesis thinking skills.
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MECHANICAL TECHNOLOGY

MEC51. Engine Theory (3)
   **Lec 3 Hrs**
   **Semesters Offered:** Variable
   Engine theory covering all aspects of the service, maintenance repair, and overhaul of the gasoline and diesel engine, as related to Industrial, Marine, and Construction fields.
   [CSU]

MEC53. Industrial Electricity (3)
   **Lec 3 Hrs**
   **Semesters Offered:** Variable
   This course is a study of electrical maintenance in the factory or plant operation. This course will stress safety, proper use of tools of the trade principles of electricity and basic electrical circuits, electrical conductors, grounding techniques and wire practices and layouts. Will also include electrical codes, motor controls, safety switches and relays. Industrial Electrical experience is recommended for successful completion of this course.
   [CSU]

MEC54. Mechanical Skills (3)
   **Lec 3 Hrs**
   **Semesters Offered:** Variable
   Principles of power trains and accessory systems primarily as applied to agricultural equipment. An in-depth study of motors, clutches, transmissions, differentials and final drives.
   [CSU]

MEC55. Applied Industrial Mech. (1-6)
   **Semesters Offered:** Variable
   For the advanced Agriculture Mechanics student, a course in practical and current applications of agriculture mechanics skills. The student will apply skills to construction of major equipment projects and the actual operation of the equipment. Course may be repeated for up to 6 units credit.
   [CSU]

MEC56. Hydraulics & Pneumatics (3)
   **Lec 3 Hrs**
   **Semesters Offered:** Variable
   Basic fundamentals of hydraulic and pneumatic systems: components, applications, troubleshooting malfunctions, maintenance and repair.
   [CSU]

MEC57. Commercial Refrigeration (3)
   **Pass/No Pass Option**
   **Lec 3 Hrs**
   **Semesters Offered:** Variable
   Application of basic refrigeration concepts in light commercial refrigeration installations. Troubleshooting techniques used in light commercial refrigeration maintenance, refrigeration load calculations, refrigeration piping requirements, and industrial water treatment.
   [CSU]

MEC59. Industrial Materials and Processes (3)
   **Semesters Offered:** Variable
   Study of specific processes, the types and characteristics of common engineering materials; their basic structure including the concept of internal bond; major types of the manufacturing processes including casting, forming, separating, conditioning, assembling and finishing. English 253 with a grade of C or better, or eligibility for English 101 and a STAAR reading score of 10 or above is recommended.
   [CSU]

MEC60. Small Engine Repair & Maintenance (2)
   **Lec 1 Hr; Lab 3 Hrs**
   **Semesters Offered:** Variable
   Application of the many skills required to overhaul, repair, and service the small gasoline and diesel engine.
   [CSU]

MEC169. Hazardous Materials and Industrial Safety (1)
   **Lec 1 Hr**
   **Semesters Offered:** Variable
   A basic course in all aspects of safety as it relates to industry. The course will cover the following topics: Hazardous Materials as it pertains to the specific trades. Examples are construction, welding, auto repair, electronics, auto collision repair, health care services, personal protective equipment, materials handling and storage, industrial hygiene, safety inspections, and general industrial safety of proper use of tools and machines. Not open to students who have taken AGR 169.

MET1. Weather and Climate (3)
   **Lec 3 Hrs**
   **Semesters Offered:** Variable
   Elementary survey of basic principles of weather phenomena, structure, and general circulation of the atmosphere, regional distribution and effects of weather, climate, and climatic cycles. A course designed for all students from all majors who desire a general knowledge and appreciation of weather and climate.
   [CSU; UC; CSU-GE, AREA B1; IGETC, AREA 5]
MUS1A. Music Appreciation - Historical Perspective (3)
Lec 3 Hrs
Semesters Offered: Variable
A survey of Western music from the 6th century C.E. until the present, covering the important style periods along with the composers who created them and the resources they used.
[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3]

MUS1B. Music Appreciation - Genre Perspective (3)
Lec 3 Hrs
Semesters Offered: Variable
A survey of Western music with special emphasis on listening, understanding, and enjoyment of musical masterworks in such varied genres as art song, opera, oratorio, mass, symphony and chamber music.
[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3]

MUS2. Music Fundamentals (3)
Lec 3 Hrs
Semesters Offered: Variable
An introduction to music fundamentals and skills for students with no previous musical training. Recommended as preparation for the study of any instrument or as special background for the classroom teacher.
[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3]

MUS5. Ethnic Musics in the U.S. (3)
Lec 3 Hrs
Semesters Offered: Variable
Introduction to selected ethnic musics that flourish in the United States including: Hispanic/Latino, Chicano/Mexican-American, Black African-American, Native American, Asian-American, Pacific Islander, and European traditions. The course focuses on the relation of musical genres and movements to the history of the United States and to the society and culture of the country.
[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3]

MUS6. Hawaiian Music (3)
Lec 3 Hrs
Semesters Offered: Variable
Music of Hawaii from ancient to modern times. Covers chants and chanting styles, hula kahiko and auwana, and contemporary music. Incorporates elements of Hawaiian language, culture and dance (hula). Includes the impact of foreigners on Hawaiian music and culture, and Hawaii’s impact on the musical world. Musical instruments are covered in depth, plus their impact on other music.
[CSU; UC CSU-GE, AREA C1; IGETC, AREA 3]

MUS7. Jazz Appreciation (3)
Lec 3 Hrs
Semesters Offered: Variable
A survey of the history of vocal and instrumental jazz music from the late 1800’s to the present covering the important jazz styles along with the artists who created them and the cultural, social, political, and economic factors which influenced the art form. The influence of such social themes as slavery, racial segregation, the civil rights movement, and immigration on jazz will be studied.
[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3]

MUS10. Applied Music - Voice (1)
Lec 1 Hr; Lab 2 Hrs
Semesters Offered: Variable
Class instruction in the art of singing. Topics include physical and mental poise, breathing, use of the organs of articulation, vowels, tone production, and vocal literature. May be repeated for credit to a maximum of 4 units.
[CSU; UC]

MUS13A. Beginning Piano I (1)
Prerequisite: Music 19
Advisory: Concurrent enrollment in Music 2 is recommended.
Lec 1 Hr; Lab 2 Hrs
Semesters Offered: Variable
Beginning piano study including introduction to the keyboard and music reading. Piano classes maybe repeatable at the appropriate level, but total piano enrollments are limited to four.
[CSU; UC]

MUS13B. Beginning Piano II (1)
Prerequisite: Music 13A or equivalent with a grade of C or better.
Corequisite: Music 19.
Advisory: Concurrent enrollment in Music 2 is recommended.
Lec 1 Hr; Lab 2 Hrs
Semesters Offered: Variable
Continuation of beginning piano study. Piano classes may be repeated at the appropriate level, but total piano enrollments are limited to four. Advisory: [CSU; UC]

MUS14. Intermediate Piano (1)
Prerequisite: Music 13B with a grade of C or better.
Corequisite: Music 19 recommended.
Lec 1 Hr; Lab 2 Hrs
Semesters Offered: Variable
Intermediate piano study covering the fundamentals of technique, style and interpretation. Solo and ensemble performance from standard piano literature. Piano classes may be repeated at the appropriate level, but total piano enrollments are limited to four.
[CSU; UC]

MUS15. Advanced Piano (1)
Prerequisite: Music 14 with a grade of C or better.
Corequisite: Music 19 recommended.
Lec 1 Hr; Lab 2 Hrs
Semesters Offered: Variable
Advanced piano study, a continuation of Music 14. Piano classes may be repeated at the appropriate level, but total piano enrollments are limited to four.
[CSU; UC]

MUS17A. Beginning Guitar I (1)
Lec 1 Hr; Lab 2 Hrs
Semesters Offered: Variable
Class instruction on guitar at the beginning level. Covers position, right and left hand playing techniques, tuning, and the basics of musical notation. Students must bring their own unamplified guitar. Guitar classes may be repeated at the appropriate level but guitar enrollments are limited to a total of four.
[CSU; UC]

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MUS17B. Beginning Guitar II (1)
Prerequisite: Music 17A with a grade of "C" or better.
Lec 1 Hr; Lab 2 Hrs
Seminesters Offered: Variable
Continued instruction on the guitar with emphasis on note reading and the performance of chords and arpeggios. Students must bring their own unamplified guitar. Guitar classes may be repeated at the appropriate level but guitar enrollments are limited to a total of four.
[CSU; UC]

MUS17C. Intermediate Guitar I (1)
Prerequisite: Music 17B with a grade of "C" or better.
Lec 1 Hr; Lab 2 Hrs
Seminesters Offered: Variable
Instruction on guitar to include playing in 2nd and 3rd position, study of classical and contemporary solos and etudes, and an introduction to ensemble playing. Students must bring their own unamplified guitar. Guitar classes may be repeated at the appropriate level but guitar enrollments are limited to a total of four.
[CSU; UC]

MUS17D. Intermediate Guitar II (1)
Prerequisite: Music 17C with a grade of "C" or better.
Lec 1 Hr; Lab 2 Hrs
Seminesters Offered: Variable
Continued instruction on guitar at the upper intermediate level including 2nd and 3rd positions, vibrato, harmonics, classical and contemporary solos and etudes, and ensemble playing. Students must bring their own unamplified guitar. Guitar classes may be repeated at the appropriate level but guitar enrollments are limited to a total of four.
[CSU; UC]

MUS19. Music Practicum (1-2)
Seminesters Offered: Variable
Supervised practice in instrumental or vocal music.
[CSU; UC]

MUS20. Hartnell College Choir (1)
Lec 1 Hr; Lab 2 Hrs
Seminesters Offered: Variable
A performance group studying the choral literature ranging from works of the early masters to modern composers. This course is not limited to music majors. Students majoring in vocal music are expected to enroll in the choir for two years. May be repeated for credit to a maximum of 4 units.
[CSU; UC]

MUS21. Hartnell Chamber Singers (1)
Advisory: Members selected from the Hartnell Choir by audition.
Lec 1 Hr; Lab 2 Hrs
Seminesters Offered: Variable
A vocal ensemble devoted to the study and performance of musical literature suited to a small group of singers. Selection of singers is to be made from members of the Hartnell Choir. May be repeated for credit to a maximum of 4 units.
[CSU; UC]

MUS23.1. Hartnell Chorale – Renaissance/Baroque Emphasis (1)
Advisory: Intended for persons with previous choral experience.
Lec 1 Hr; Lab 2 Hrs
Seminesters Offered: Variable
A choral group of mixed voices which rehearses and performs a wide range of musical literature with special emphasis on the study of techniques for performing Renaissance and Baroque music.
[CSU; UC]

MUS23.2. Hartnell Chorale – Classic/Romantic Emphasis (1)
Advisory: Intended for persons with previous choral experience.
Lec 1 Hr; Lab 2 Hrs
Seminesters Offered: Variable
A choral group of mixed voices which rehearses and performs a wide range of musical literature with special emphasis on the study of techniques for performing Classic and Romantic music.
[CSU; UC]

MUS23.3. Hartnell Chorale – 20th Century Emphasis (1)
Advisory: Intended for persons with previous choral experience.
Lec 1 Hr; Lab 2 Hrs
Seminesters Offered: Variable
A choral group of mixed voices which rehearses and performs a wide range of musical literature with special emphasis on the study of techniques for performing 20th century music.
[CSU; UC]

MUS23.4. Hartnell Chorale – 20th Century "Pops" Emphasis (1)
Advisory: Intended for persons with previous choral experience.
Lec 1 Hr; Lab 2 Hrs
Seminesters Offered: Variable
A choral group of mixed voices which rehearses and performs a wide range of musical literature with special emphasis on the study of techniques for performing 20th century "pops" music.
[CSU; UC]

MUS25. Hartnell Chorale – 21st Century Emphasis (1)
Advisory: Intended for persons with previous choral experience.
Lec 1 Hr; Lab 2 Hrs
Seminesters Offered: Variable
A choral group of mixed voices which rehearses and performs a wide range of musical literature with special emphasis on the study of techniques for performing 21st century music.
[CSU]

MUS26. Jazz Ensemble (1)
Lec 1 Hr; Lab 2 Hrs
Seminesters Offered: Variable
A performance group studying literature for the jazz ensemble. Performances include concerts and playing at college and community events. Open to all students who play a wind or percussion instrument. Music majors specializing in instrumental music are expected to participate for two years. May be repeated for credit to a maximum of 4 units.
[CSU; UC]

MUS29.1. Symphonic Band – 18th Century Emphasis (1)
Advisory: Intended for persons with previous band instrument experience.
Lec 1 Hr; Lab 2 Hrs
Seminesters Offered: Variable
A symphonic band which rehearses and performs a wide range of musical literature with special emphasis on the study of techniques for performing 18th century music.
[CSU; UC]

MUS29.2. Symphonic Band – 19th Century Emphasis (1)
Advisory: Intended for persons with previous band instrument experience.
Lec 1 Hr; Lab 2 Hrs
Seminesters Offered: Variable
A symphonic band which rehearses and performs a wide range of musical literature with special emphasis on the study of techniques for performing 19th century music.
[CSU; UC]

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MUS29.3. Symphonic Band - 20th Century Emphasis (1)
Advisory: Intended for persons with previous band instrument experience.
Lec 1 Hr; Lab 2 Hrs
Semesters Offered: Variable
A symphonic band which rehearses and performs a wide range of musical literature with special emphasis on the study of techniques for performing 20th century music.
[CSU; UC]

MUS29.4. Symphonic Band - 20th Century "Pops" Emphasis (1)
Advisory: Intended for persons with previous band instrument experience.
Lec 1 Hr; Lab 2 Hrs
Semesters Offered: Variable
A symphonic band which rehearses and performs a wide range of musical literature with special emphasis on the study of techniques for performing 20th century “pops” music.
[CSU; UC]

MUS29.5. Symphonic Band - 21st Century Emphasis (1)
Advisory: Intended for persons with previous band instrument experience.
Lec 1 Hr; Lab 2 Hrs
Semesters Offered: Variable
A symphonic band which rehearses and performs a wide range of musical literature with special emphasis on the study of techniques for performing 21st century music.
[CSU]

MUS34.3 Symphony Orchestra - 20th Century Emphasis (1)
Advisory: Intended for persons with previous orchestral instrument experience.
Lec 1 Hr; Lab 2 Hrs
Semesters Offered: Variable
A symphony orchestra which rehearses and performs a wide range of musical literature with special emphasis on the study of techniques for performing 20th century music.
[CSU; UC]

MUS34.4. Symphony Orchestra - 20th Century "Pops" Emphasis (1)
Advisory: Intended for persons with previous orchestral instrument experience.
Lec 1 Hr; Lab 2 Hrs
Semesters Offered: Variable
A symphony orchestra which rehearses and performs a wide range of musical literature with special emphasis on the study of techniques for performing 20th century “pops” music.
[CSU; UC]

MUS34.5. Symphony Orchestra - 21st Century Emphasis (1)
Advisory: Intended for persons with previous orchestral instrument experience.
Lec 1 Hr; Lab 2 Hrs
Semesters Offered: Variable
A symphony orchestra which rehearses and performs a wide range of musical literature with special emphasis on the study of techniques for performing 21st century music.
[CSU]

MUS34.6. Computer-Based Digital Audio Recording (2)
Lec 1.5 Hrs; Lab 1.5 Hr
Semesters Offered: Variable
Introduction to digital audio recording using a computer. Includes basic acoustics, fundamentals of audio recording, basics of digital audio, multi-track recording, CD creation, and microphone selection and placement. Creation of original "sound design" projects.
[CSU]

MUS34.7 Computer-Based Midi Sequencing (2)
Prerequisite: Music 42 with a grade of C or better.
Lec 1.5 Hrs; Lab 1.5 Hr
Semesters Offered: Variable
Introduction to MIDI sequencing using a computer. Includes hardware and software selection and set-up, click tracks, quantizing, looping, multi-timbral operations, step-time recording, CD creation, MIDI for web pages. Creation of original MIDI sequences.
[CSU]

MUS45. Special Projects (1-3)
Semesters Offered: Variable
Individual projects concerned with material not normally a major part of a specific course. Projects may include preparation for a public recital, a original composition, an extensive research paper, or a combination of the above.
[CSU]

MUS50A. Harmony I (3)
Corequisite: Music 51A
Advisory: Familiarity with musical notation and the piano keyboard.
Lec 3 Hrs
Semesters Offered: Variable
The diatonic system of harmony from an analytical and practical point of view, including the basic elements of voice leading, musical analysis, and chord usage.
[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3]

MUS50B. Harmony II (3)
Prerequisite: Music 50A with a grade of C or better.
Corequisite: Music 51B
Lec 3 Hrs
Semesters Offered: Variable
Continuation of Music 50A. The diatonic system of harmony from an analytical and practical point of view, including voice leading, musical analysis, and chord usage.
[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3]

MUS51A. Musicianship I (2)
Corequisite: Music 50A
Advisory: Familiarity with Musical notation and the piano keyboard.
Lec 2 Hrs
Semesters Offered: Variable
The elements of musical notation. Sight-singing, and ear-training using diatonic materials.
[CSU; UC]

MUS51B. Musicianship II (2)
Prerequisite: Music 51A with a grade of C or better.
Corequisite: Music 50B
Lec 2 Hrs
Semesters Offered: Variable
Continuation of Music 51A. Sight singing and ear training using diatonic materials.
[CSU; UC]

MUS52A. Harmony III (3)
Prerequisite: Music 50B with a grade of C or better.
Corequisite: Music 53A
Lec 3 Hrs
Semesters Offered: Variable
Chromatic harmony, form, musical analysis, and orchestration.
[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3]
MUS52B. Harmony IV (3)
Prerequisite: Music 52A with a grade of C or better.
Corequisite: Music 53B
Lec 3 Hrs
Semesters Offered: Variable
Continuation of harmonic analysis, in preparation for the study of 20th century harmonic techniques, form, music analysis, and orchestration.
[CSU; UC; CSU-GE, AREA C1; IGETC, AREA 3]

MUS53A. Musicianship III (2)
Prerequisite: Music 51B with a grade of C or better.
Corequisite: Music 52A
Lec 2 Hrs
Semesters Offered: Variable
Sight-singing, ear-training, dictation, and analysis of exercises involving melodic modulations and harmonic analysis drawn from 19th century music literature.
[CSU; UC]

MUS53B. Musicianship IV (2)
Prerequisite: Music 53A with a grade of C or better.
Corequisite: Music 52B
Lec 2 Hrs
Semesters Offered: Variable
Sight-singing, ear-training, dictation and analysis of exercises involving impressionistic, early 20th century, and contemporary melodies and harmonies with examples drawn from 20th century literature.
[CSU; UC]

MUS120A. Introduction to Musical Theatre Production: Concept and Development (.5-4)
Pass/No Pass Only
Semesters Offered: Variable
An introduction to the production of the musical play with an emphasis on the concept and development of script, design elements, and performance techniques. Students may enroll in MUS-120A and THA-120A a maximum of four times.

MUS120B. Introduction to Musical Theatre Production: Implementation and Practice (.5-4)
Pass/No Pass Only
Semesters Offered: Variable
An introduction to the production of the musical with an emphasis on the implementation and practice of rehearsal and production techniques. Students may enroll in MUS-120B and THA-120B a maximum of four times.

MUS120C. Introduction to Musical Theatre Production: Execution and Assessment (.5-4)
Pass/No Pass Only
Semesters Offered: Variable
An introduction to the production of the musical with an emphasis on the execution of a fully realized production. Students may enroll in MUS-120C and THA-120C a maximum of four times.

MUS121. Musical Theatre: Modern Musicals in Rehearsal (.5-4)
Pass/No Pass Only
Semesters Offered: Variable
Extensive practice in the development of the modern musical, with an emphasis on performance and stage management. Students may enroll in any combination of Music 121 and Theatre Arts 121 a maximum of four times.

MUS122. Musical Theatre: Modern Musicals in Performance (.5-3)
Pass/No Pass Only
Semesters Offered: Variable
Play presentation techniques for the performer, stage manager and theatre technician, with an emphasis on the literature of the modern musical play. Students may enroll in any combination of Music 122 and Theatre Arts 122 a maximum of four times.

MUS123. Musical Theatre: The Ensemble Musical in Rehearsal (.5-4)
Pass/No Pass Only
Semesters Offered: Variable
The rehearsal and development of the ensemble musical, in a performance setting with an emphasis on performance or stage management. Students may enroll in MUS-123 or THA-123 a maximum of four times.

MUS124. Musical Theatre: The Ensemble Musical in Performance (.5-3)
Pass/No Pass Only
Semesters Offered: Variable
Play presentation techniques for the performer, stage manager and theatre technician, with an emphasis on the literature of the ensemble musical play. Students may enroll in any combination of Music 124 and Theatre Arts 124 a maximum of four times.

MUS125. Musical Theatre - World Theatre Musicals in Rehearsal (.5-4)
Pass/No Pass Only
Semesters Offered: Variable
Extensive practice in the development of the world theatre musical, with an emphasis on performance and stage management. Students may enroll in any combination of Music 125 and Theatre Arts 125 a maximum of four times.

MUS126. Musical Theatre - World Theatre Musicals in Performance (.5-3)
Pass/No Pass Only
Semesters Offered: Variable
Presentation techniques for the performer, stage manager and theatre technician, with an emphasis on the literature of the world theatre musical. Students may enroll in any combination of Music 126 and Theatre Arts 126 a maximum of four times.

MUS127. Musical Theatre: Revival Musicals in Rehearsal (.5-4)
Pass/No Pass Only
Semesters Offered: Variable
The rehearsal and development of the revival musical, with an emphasis on performance and stage management. Students may enroll in MUS-127 or THA-127 a maximum of four times.

MUS128. Musical Theatre: Revival Musicals in Performance (.5-3)
Pass/No Pass Only
Semesters Offered: Variable
Play presentation techniques for the performer, stage manager and theatre technician, with an emphasis on the literature of the revival musical play. Students may enroll in MUS-128 or THA-128 a maximum of four times.

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NRN20. LVN-RN Transition (4)
Prerequisite: Current California licensure as a vocational nurse is required prior to enrollment in NRN20.
Corequisite: NRN 50
Lec 3 Hrs; Lab Hrs 3 Hrs
Semesters Offered: Variable
This course facilitates the transition of the licensed vocational nurse into the third semester of the RN program. The course focuses on the application of the nursing process for nursing care plans, pathophysiology, pharmacology, and critical thinking skills. There is a laboratory component of the course to allow students to participate and demonstrate proficiency of selected nursing skills.
[CSU]

NRN30. Basics of Pharmacology for Nursing Practice (1)
Corequisite: NRN 41
Lec 1 Hr
Semesters Offered: Variable
Introduction to the basic concepts of pharmacology for nursing practice. In the context of the nursing process, focus is on pharmacokinetics, pharmacodynamics and applications of nursing practice.
[CSU]

NRN40. Preceptorship in Nursing (2.5)
Pass/No Pass Only
Prerequisite: NRN-44, NRN-44.1, NRN-44.2
Lab 7.5 Hrs
Semesters Offered: Variable
This practicum course provides the fourth semester nursing student with an opportunity to implement the professional roles, responsibilities, and skills of the registered nurse. The student will be assigned to work with a nurse preceptor, according to the preceptor's schedule, in an acute medical/surgical setting.
[CSU]

NRN41. Nursing Theory I (4)
Prerequisite: Acceptance into the Hartnell College Registered Nursing Program.
Corequisite: NRN-41.1, NRN-41.2, NRN-41.3, NRN-30
Lec 4 Hrs
Semesters Offered: Variable
Application of the Roy Adaptation Model as the framework for the study of nursing. The content focus is the adult client with non-life-threatening physiologic alterations.
[CSU]

NRN41.1. Nursing Clinical I (4)
Pass/No Pass Only
Prerequisite: Admission to the Hartnell College registered nursing program.
Corequisite: NRN-41, NRN-41.2, NRN-41.3, NRN-30
Lab 12 Hrs
Semesters Offered: Variable
Using the nursing process according to the Roy Adaptation Model as a framework for providing nursing care, students care for adult clients with non-life threatening physiological alterations.
[CSU]

NRN41.2. Critical Thinking for Nurses I (1)
Pass/No Pass Only
Prerequisite: Acceptance into the Hartnell College registered nursing program.
Lec 1 Hr
Semesters Offered: Variable
Use of the Roy Adaptation Model and critical thinking strategies in the application of nursing theory utilizing a case study approach. The content focus is the development and evaluation of plans of care for adult clients with non life-threatening physiologic alterations.
[CSU]

NRN41.3. Nursing Skills Lab I (1)
Prerequisite: Admission to the Hartnell College registered nursing program.
Lab 3 Hrs
Semesters Offered: Variable
The nursing process according to the Roy Adaptation Model is used as the framework for presenting fundamental nursing skills required for bedside care. Emphasis is on basic physical assessment and nursing skills necessary to support adaptation of the hospitalized client.
[CSU]

NRN42. Nursing Theory II (4)
Prerequisite: NRN-41 with a grade of "C" or better.
Corequisite: NRN-42.1, NRN-42.2
Lec 4 Hrs
Semesters Offered: Variable
Application of the Roy Adaptation Model as the framework for the study of nursing. The content focus is the childbearing family from preconception to middle adult.
[CSU]

NRN42.1. Nursing Clinical II (4)
Pass/No Pass Only
Prerequisite: NRN-41.1 with a grade of "C" or better.
Corequisite: NRN-42, NRN-42.2
Lab 12 Hrs
Semesters Offered: Variable
Application in a clinical setting of the Roy Adaptation Model as the framework for the study of nursing. The content focus is on the childbearing family from pre-conception through middle adult.
[CSU]

NRN42.2. Critical Thinking for Nurses II (1)
Pass/No Pass Only
Prerequisite: NRN-41.2 with a grade of "C" or better.
Corequisite: NRN-42, 42.1
Lec 1 Hr
Semesters Offered: Variable
Use of critical thinking strategies in the application of theory to clinical practice utilizing a case-study approach. The content focus is on the childbearing family from preconception to middle adult.
[CSU]

NRN43. Nursing Theory III (4)
Prerequisite: NRN-42 with a grade of "C" or better or NRN-20 with a grade of "C" or better.
Corequisite: NRN 43.1, NRN 43.2, NRN 43.3
Lab 15 Hrs
Semesters Offered: Variable
Application of the nursing process as the framework for the study of nursing. The content focus is the adult, geriatric, and mental health client with increasingly complex alterations in health.
[CSU]

NRN43.1. Nursing Clinical III (5)
Pass/No Pass Only
Prerequisite: NRN-20 with a grade of "C" or better or NRN-42.1 with a grade of "C" or better.
Corequisite: NRN-43, NRN 43.2, NRN 43.3
Lab 15 Hrs
Semesters Offered: Variable
Application of the nursing process as a framework for providing nursing care. Students care for clients with increasingly complex alterations. Emphasis is on the adult, geriatric, and mental health client in the acute care, mental health, and long-term care settings.
[CSU]

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NRN43.2. Critical Thinking for Nurses III (1)  
Pass/No Pass Only  
Prerequisite: NRN 42.2 with a grade of "C" or better or NRN 20 with a grade of "C" or better.  
Corequisite: NRN 43, NRN 43.1, NRN 43.3  
Lec 1 Hr  
Semesters Offered: Variable  
Focuses on enhancing critical thinking strategies using a case-study approach and developing communication and leadership skills using small group discussions. Emphasis is on applying the nursing process in the care of the adult, geriatric, and mental health client with increasingly complex physiological and psychological alterations.  
[CSU]

NRN43.3. Nursing Skills Lab III (1)  
Prerequisite: NRN 41.3 with a grade of "C" or better or NRN 20 with a grade of "C" or better.  
Corequisite: NRN-43, NRN 43.1, NRN-43.2, NRN-50  
Lab 3 Hrs  
Semesters Offered: Variable  
The nursing process is used as the framework for presenting the nursing skills required for the care of clients with increasingly complex alterations in health. Emphasis is on the adult, geriatric, and mental health client in the acute care and community settings.  
[CSU]

NRN44. Nursing Theory IV (4)  
Prerequisite: NRN 43 with a grade of C or better.  
Corequisite: NRN 44, NRN 44.1, NRN 44.2  
Lec 4 Hrs  
Semesters Offered: Variable  
Application of the Roy Adaptation Model as the framework for the study of nursing. The content focuses on the adult client with multi-system failure, nursing leadership, and nursing management.  
[CSU]

NRN44.1. Nursing Clinical IV (4)  
Pass/No Pass Only  
Prerequisite: NRN 43.1 with a grade of C or better.  
Corequisite: NRN 44, NRN 44.2  
Lab 12 Hrs  
Semesters Offered: Variable  
Using the Roy Adaptation Model with the nursing process as a framework for providing nursing care, students care for 3-4 clients with multi-system failure and increasingly complex alterations in the acute care and community-based settings. Emphasis is on the management of complex clients and nursing leadership.  
[CSU]

NRN44.2. Critical Thinking for Nurses IV (1)  
Pass/No Pass Only  
Prerequisite: NRN 43.2 with a grade of C or better.  
Corequisite: NRN 44, NRN 44.1  
Lec 1 Hr  
Semesters Offered: Variable  
Use of the Roy Adaptation Model and critical thinking strategies in the application of nursing theory utilizing a case study approach. The content focuses on developing and evaluating plans of care for the adult client with multi-system failure and nursing leadership and management.  
[CSU]

NRN45. Special Projects (1-3)  
Pass/No Pass Only  
Semesters Offered: Variable  
This course is designed for nursing students who are interested in researching topics beyond the scope of a regular nursing course. The course details will depend on the topic chosen and its scope. The individualized course is based on the selected research or application of nursing theory within a simulated or actual clinical environment.  
[CSU]

NRN50. Registered Nursing Laboratory Practicum (3-2)  
Pass/No Pass Only  
Corequisites: NRN-41.3, NRN-42.1, NRN-43.3 or NRN-44.1  
Semesters Offered: Variable  
This course facilitates the mastery of basic nursing skills. Supervised practice is provided. Student performance is evaluated and documented through competency testing using established standardized criteria.  
[CSU]

NRN225. Survival Skills for 1st Semester Students (1-3)  
Pass/No Pass Only  
Semesters Offered: Variable  
This course is designed for first semester registered nursing students who are interested in reinforcing content presented within the scope of a regular nursing course. The course is individualized for each student based on their identified learning needs. This course provides the nursing student the opportunity to discuss theoretical concepts and practice clinical skills to increase student success within the nursing program.  

NRN226. Success Strategies for 2nd Semester RN Students (1-3)  
Pass/No Pass Only  
Semesters Offered: Variable  
This course is designed for second semester registered nursing students who are interested in reinforcing content presented within the scope of a regular nursing course. The course is individualized for each student based on their identified learning needs. This course provides the nursing student the opportunity to discuss theoretical concepts and practice clinical skills to increase student success within the nursing program.  

NRN227. Success Strategies for 3rd Semester RN Students (1-3)  
Pass/No Pass Only  
Semesters Offered: Variable  
This course is designed for third semester registered nursing students who are interested in reinforcing content presented within the scope of a regular nursing course. The course is individualized for each student based on their identified learning needs. This course provides the nursing student the opportunity to discuss theoretical concepts and practice clinical skills to increase student success within the nursing program.  

NRN228. Success Strategies for 4th Semester RN Students (1-3)  
Pass/No Pass Only  
Semesters Offered: Variable  
This course is designed for fourth semester registered nursing students who are interested in reinforcing content presented within the scope of a regular nursing course. The course is individualized for each student based on their identified learning needs. This course provides the nursing student the opportunity to discuss theoretical concepts and practice clinical skills to increase student success within the nursing program.  

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Nursing–Vocational

NVN120. Vocational Nursing I: Fundamentals (10)
Prerequisite: Acceptance into the Hartnell College Vocational Nursing program.
Advisory: NVN-130 AND NVN-131
Semesters Offered: Variable
Introduction to the nursing process in the fundamental nursing care of adult patients with non-threatening physiological alterations.

NVN121. Vocational Nursing II: Care of the Childbearing Family (12)
Prerequisite: NVN 120: Vocational Nursing I: Fundamentals with a grade of C or better.
Lec 6 Hrs; Lab 18 Hrs
Semesters Offered: Variable
Application of the nursing process in the nursing care of the childbearing family.

NVN122. Vocational Nursing III: Care of the Adult, Geriatric, and Mental Health Patient (12)
Prerequisite: NVN 121 with a grade of C or better.
Lec 6 Hrs; Lab 18 Hrs
Semesters Offered: Variable
Application of the nursing process in the nursing care of adult, geriatric and mental health patients with increasingly complex alterations in health.

NVN130. Basic Pharmacology (3)
Prerequisite: Math 201 with a grade of C or better.
Lec 3 Hrs
Semesters Offered: Variable
A survey course in pharmacology with heavy emphasis on calculations. Focus on major drugs in the cardiovascular, respiratory, endocrine, gastrointestinal and nervous systems, with specific reference to the action and nursing implications.
[CSU]

NVN131. Growth and Development Across the Lifespan (2)
Prerequisite: Psychology 1A with a grade of C or better.
Advisory: ENG-1A with grade of "C" or better.
Lec 2 Hrs
Semesters Offered: Variable
Promotion of wellness across the life span. Critical thinking skills are used emphasizing normal physical, cognitive, ethnic, socio-cultural, sexual, and personality development extending from conception to death. Because of the rigorous coursework and time commitment of the Hartnell LVN Program, it is recommended that this course be completed prior to entry into the LVN Program.
[CSU]

NVN150. Vocational Nursing Laboratory Practicum (3-2.0)
Pass/No Pass Only
Corequisite: NVN-120, NVN-121, or NVN-122.
Semesters Offered: Variable
This course facilitates the mastery of basic nursing skills. Supervised practice is provided. Student performance is evaluated and documented through competency testing using established standardized criteria.

NVN210. Intravenous Therapy Tech. (2)
Prerequisite: NVN 122 with a grade of C or better.
Lec 1.9 Hrs; Lab .4 Hrs
Semesters Offered: Variable
This course provides authorized allied health personnel with knowledge and skill to competently and safely perform a venipuncture. Emphasis will be placed on current concepts and measures of starting, monitoring, adapting, and maintaining the intravenous therapy and blood administration for patient care.

NVN225 Success Strategies for 1st Semester VN Students (1-3)
Pass/No Pass Only
Semesters Offered: Variable
This course is designed for first semester vocational nursing students who are interested in reinforcing content presented within the scope of a regular nursing course. The course is individualized for each student based on their identified learning needs. This course provides the nursing student the opportunity to discuss theoretical concepts and practice clinical skills to increase student success within the nursing program.

NVN226 Success Strategies for 2nd Semester VN Students (1-3)
Pass/No Pass Only
Semesters Offered: Variable
This course is designed for second semester vocational nursing students who are interested in reinforcing content presented within the scope of a regular nursing course. The course is individualized for each student based on their identified learning needs. This course provides the nursing student the opportunity to discuss theoretical concepts and practice clinical skills to increase student success within the nursing program.

NVN227 Success Strategies for 3rd Semester VN Students (1-3)
Pass/No Pass Only
Semesters Offered: Variable
This course is designed for third semester vocational nursing students who are interested in reinforcing content presented within the scope of a regular nursing course. The course is individualized for each student based on their identified learning needs. This course provides the nursing student the opportunity to discuss theoretical concepts and practice clinical skills to increase student success within the nursing program.

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PHL2. Introduction to Philosophy (3)
   Lab 3 Hrs
   Semesters Offered: Variable
   An introduction to some questions and methods of philosophy. Topics include Principles of Right Conduct (Ethics), Sources and Extent of Our Knowledge (Epistemology), The Nature of Reality, and The Existence of God (Metaphysics), Criteria of A Just Society (Social-Political Philosophy), and Criteria of Sound Reasoning (Logic).
   [CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3]

PHL6. Introduction to Philosophy: Greek to Medieval Period (3)
   Lab 3 Hrs
   Semesters Offered: Variable
   An introduction to Western philosophy from an historical viewpoint, stressing in particular an analysis of the original text material of various philosophers from the Greek to the Medieval period.
   [CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3]

PHL8. Introduction to Philosophy: Renaissance to the Twentieth Century (3)
   Lab 3 Hrs
   Semesters Offered: Variable
   An introduction to Western philosophy from an historical viewpoint, stressing in particular an analysis of the original text material of various philosophers from the Renaissance to the twentieth century Existentialists.
   [CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3]

PHL10. Ethics (3)
   Lab 3 Hrs
   Semesters Offered: Variable
   Presents an in depth analysis of major ethical theories and their application to contemporary moral, social, and personal issues. Students will learn to analyze and differentiate the concepts, principles, and operational rules of major ethical theories. Analytically comparing and contrasting these theories, students will use this analytic framework to evaluate contemporary moral issues.
   [CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3]

PHL15. Critical Thinking and Logic (3)
   Pass/No Pass Option
   Lab 3 Hrs
   Semesters Offered: Variable
   An introduction to the principles of sound reasoning with emphasis on deductive logic. Students are introduced to the basic techniques of categorical and truth-functional logics, and to inductive reasoning, common fallacies and to varieties of language use.
   [CSU; UC; CSU-GE AREA A3]

PHL45. Special Projects (1-3)
   Semesters Offered: Variable
   A supervised program of independent research and study into a particular field of philosophy. Completion of or concurrent enrollment in Philosophy 2, 6, or 8 recommended.
   [CSU]
PHO1. Introduction to Photography (3)
   Lab 3 Hrs
   *Semesters Offered: Variable*

   A beginning course in which the fundamental technology, theory, history, techniques and personal/professional applications of photography are studied and practiced. Students participate using a 35mm camera and slide film. No darkroom techniques are covered. Digital cameras are demonstrated and analyzed.

   [CSU; UC; CSU-GE AREA C1; IGETC AREA 3]

PHO2. Beginning Black and White Photography (3)
   Lab 3 Hrs; Lab 3 Hrs
   *Semesters Offered: Variable*

   This is an introductory course designed to teach the fundamental skills of Black and White photography. Students produce prints of high technical quality and esthetic value. Course study includes the processing of various films, contact printing, enlargement printing, composition, print after-work, digital applications and mounting.

   [CSU; UC]

PHO3. Advanced Photography Lab (3)
   Prerequisite: Photography 2 with a grade of C or better.
   Lab 3 Hrs; Lab 3 Hrs
   *Semesters Offered: Variable*

   This course is an extension of PHO-2 with special emphasis on the study of photography as an art form and profession. Assignments are given in a wide variety of photographic topics, technologies, and methods in order to develop student skills and proficiencies in Black and White film as well as related issues in digital media.

   [CSU]

PHO4. Portfolio Photography (3)
   Prerequisite: Photography 3 with a grade of C or better.
   Lab 3 Hrs
   *Semesters Offered: Variable*

   Emphasizes the development of a photographic portfolio in which the student establishes near professional level skills in their choice of photographic mediums.

   [CSU]

PHO45. Special Projects (1-3)
   Lab 3-9 Hrs
   *Semesters Offered: Variable*

   Individual research and investigation within specialized creative art areas. Designed to fit student's individual interests.

   [CSU]

PHO46. Photography Practicum (1-3)
   *Semesters Offered: Variable*

   Supervised lab, studio, and location work in photography. 

   [CSU]
PE1.110. Basketball (1.5)  
**Semesters Offered:** Variable  
A course designed to develop a thorough understanding of the game of basketball. Individual game skills, popular systems of play and strategy, and the rules of the game will be discussed and analyzed. Course will begin with a health screening and baseline or functional capacity fitness assessment.  
[CSU; UC]

PE1.111. Fundamentals of Basketball (1, 1.5)  
**Semesters Offered:** Variable  
A course designed to develop an understanding of the game of basketball. Individual game skills, basic offensive and defensive drills, popular systems of play and strategy, and the rules of the game are discussed and analyzed. Course will begin with a health screening and baseline or functional capacity fitness assessment.  
[CSU; UC]

PE1.112. Intermediate Basketball (1)  
**Semesters Offered:** Variable  
 Designed to develop fundamental skills, techniques, and the physical conditioning necessary to play intermediate Basketball. Students practice offensive and defensive strategies and utilize these skills and strategies during game play.  
[CSU; UC]

PE1.134. Swim Fitness (1, 1.5)  
**Pass/No Pass Only**  
**Semesters Offered:** Variable  
Intermediate swimming techniques practiced while improving endurance and cardiovascular fitness.  
[CSU; UC]

PE1.137. Aerobics I (1, 1.5)  
**Pass/No Pass Option**  
**Semesters Offered:** Variable  
Aerobic workout is designed to increase cardiovascular efficiency, strength, endurance, and flexibility by incorporating nonstop rhythmic exercise to music. Class activity includes a warm-up, aerobic activity and a cool down.  
[CSU; UC]

PE1.138. Aerobics II (1, 1.5)  
**Pass/No Pass Option**  
**Semesters Offered:** Variable  
Aerobic exercise designed to gradually increase duration and intensity of aerobic exercise, incorporating strength, endurance, and flexibility. May be repeated for credit to a maximum of 4 units.  
[CSU; UC]

PE1.144. Adaptive Cardiac Wellness: A Positive Change in Life-Style (1.5)  
**Pass/No Pass Option**  
**Semesters Offered:** Variable  
This course is designed to help the cardiac student develop his physical potential and restore the student to an optimally productive and active life as soon as possible following a myocardial-infarction, by-pass surgery, and/or recognition of heart disease. The exercise period will provide information on diet, exercise, risk factors and stress reduction. This class is offered on an open(entry), open/exit basis. Students should complete an application in the DSPS Office for verification of eligibility for this class.  
[CSU; UC]

PE1.146. Intercollegiate Sports Conditioning (1.5)  
**Lab 4.5 Hrs**  
**Semesters Offered:** Variable  
Advanced strategies for competitive intercollegiate sports competition through the development of cardiovascular endurance, flexibility and strength through the use of weights and cardiovascular equipment with emphasis on specific strategies dependent on the sports activity.  
[CSU; UC]

PE1.147. Adaptive Fitness Exercise (1, 1.5)  
**Semesters Offered:** Variable  
Designed for individuals with physical limitations and special needs. This course is geared towards the self-improvement of the individual's physical fitness level and overall health parameters. This class is offered on an open(entry) open/exit basis. Students should complete an application in the DSP&S Office for verification of eligibility for this class.  
[CSU; UC]

PE1.150. Beginning Golf (1, 1.5)  
**Pass/No Pass Option**  
**Semesters Offered:** Variable  
Course provides instruction in the fundamental skills and techniques of golf including, stance, grip, basic rules, and course etiquette. Golf classes may be repeated at the appropriate level, but total golf enrollments are limited to four.  
[CSU; UC]

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PE1.171. Intermediate Tennis (1, 1.5)  
**Semesters Offered**: Variable  
Develops intermediate techniques necessary to play tennis. Emphasis on intermediate techniques, tennis terminology, scoring and rules of the game. Students will supply their own tennis racquet and two cans of tennis balls. Tennis classes may be repeated at the appropriate level, but total tennis enrollments are limited to four.  
[CSU; UC]  

PE1.172. Advanced Tennis (1, 1.5)  
**Semesters Offered**: Variable  
Develops advanced strategies necessary to play competitive tennis. Emphasis on advanced techniques and strategies for both singles and doubles play. Students will supply their own tennis racquet and two cans of tennis balls. Tennis classes may be repeated at the appropriate level, but total tennis enrollments are limited to four.  
[CSU; UC]  

PE1.180. Advanced Distance Running (1, 1.5)  
**Pass/No Pass Option**  
**Semesters Offered**: Variable  
Advanced techniques in distance running methods, developing aerobic endurance, flexibility and overall physical fitness.  
[CSU; UC]  

PE1.182. Self-Defense/Martial Arts (1, 2)  
**Semesters Offered**: Variable  
Course will examine the various methods of self-defense/martial arts for men and women that will have an emphasis on the protection from assaults and use of defensive techniques and strategies. Students will learn Katas required for belt promotion.  
[CSU; UC]  

PE1.183. Soccer (1, 1.5)  
**Semesters Offered**: Variable  
Instruction in the fundamental skills of soccer including dribbling, heading, trapping, passing, and team play.  
[CSU; UC]  

PE1.184. Softball (1, 1.5)  
**Pass/No Pass Option**  
**Semesters Offered**: Variable  
Techniques, rules, and practice in the sport of softball. Basic fundamentals and slow pitch are emphasized.  
[CSU; UC]  

PE1.185. Track and Field (1, 1.5)  
**Semesters Offered**: Variable  
Track and field fundamentals that develop aerobic fitness and physical conditioning which emphasize the importance and development of flexibility to improve running efficiency and injury prevention.  
[CSU; UC]  

PE1.186. Volleyball (1, 1.5)  
**Pass/No Pass Option**  
**Semesters Offered**: Variable  
Develop and improve fundamental volleyball skills including passing, setting, digging, serving, spiking, and blocking. Students practice offensive and defensive strategies and utilize these skills and strategies during game play.  
[CSU; UC]  

PE1.189. Advanced Baseball (1, 1.5)  
**Semesters Offered**: Variable  
Instruction and practice in offensive and defensive fundamentals with emphasis on strategies and techniques of baseball.  
[CSU; UC]  

PE1.193. Wellness Through Walking (1, 1.5)  
**Pass/No Pass Option**  
**Semesters Offered**: Variable  
Fundamentals of walking are introduced for the student's enhancement in cardiovascular fitness and weight control through exercise, stretching, and progressive endurance walks. Course will begin with a health screening and baseline or functional capacity fitness assessment.  
[CSU; UC]  

PE1.194. Aquatic Resistance Training (1, 1.5)  
**Semesters Offered**: Variable  
A program of resistive training performed in the water utilizing floatation devices and other resistance building equipment, such as tights, long sleeve shirts, webbed gloves, etc. Course will begin with a health screening and baseline or functional capacity fitness assessment.  
[CSU; UC]  

PE1.197. Power Lifting (1, 1.5)  
**Semesters Offered**: Variable  
Power lifting utilizing primarily free weights. Emphasis is on lifting for strength and power by concentrating on the core power lifts and other multiple joint exercises. Course provides the opportunity for students to improve their flexibility, muscular definition and endurance.  
[CSU; UC]  

PE1.198. Aerobic Strength Conditioning (1, 1.5)  
**Semesters Offered**: Variable  
Develop cardiovascular efficiency, strength, endurance, and flexibility through the use of weight machines, free weights and cardiovascular equipment. Emphasis is placed on improving overall fitness while exercising safely.  
[CSU; UC]  

PE1.200. Strength Conditioning Lab (5-1.5)  
**Pass/No Pass Option**  
**Semesters Offered**: Variable  
A progressive weight training and conditioning course involving the use of weight machines, free weights and cardiovascular equipment to develop muscular strength, endurance and general fitness.  
[CSU; UC]  

PE1.204. Circuit Endurance Training (1, 1.5)  
**Semesters Offered**: Variable  
Circuit training to develop cardiovascular efficiency, strength, endurance and flexibility. Self-monitoring of heart rate emphasized throughout the class. Physical fitness assessment testing and re-testing assist students in establishing appropriate training volumes and intensities.  
[CSU; UC]  

PE1.206. Stress Reduction (1, 1.5)  
**Pass/No Pass Option**  
**Semesters Offered**: Variable  
A physical education class emphasizing a wide variety of stretching and relaxation techniques such as Tai Chi, as well as breathing exercises for stress reduction to help round out one's overall physical fitness program. Course will begin with a health screening and baseline or functional capacity fitness assessment.  
[CSU; UC]  

PE1.211. Adaptive Basketball (1)  
**Pass/No Pass Option**  
**Semesters Offered**: Variable  
Designed for the disabled student to develop a thorough understanding of the game of basketball. Students with limitations will acquire fundamental skills, appropriate social behavior, and knowledge of the rules of basketball to enable them to successfully participate in a regulation or modified game of basketball. Students should complete an application in the Enabler's Office for verification of eligibility for this class.  
[CSU; UC]  

PE1.219. Adaptive Circuit Endurance Training (1, 1.5)  
**Pass/No Pass Only**  
**Semesters Offered**: Variable  
Designed for the physically challenged students to enhance their strength and cardiovascular endurance by using progressive resistance machines to develop muscle strength, endurance, and flexibility. This class is offered on an open/entry open/exit basis. Students should complete an application in the DSP&S Office for verification of eligibility for this class.  
[CSU; UC]  

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PE1.221. Water Jogging (1, 1.5)  
**Pass/No Pass Option**  
**Semesters Offered:** Variable  
A water exercise class emphasizing cardiovascular endurance, muscular development and flexibility using Hydro-Fit jogging cuffs and Aqua jogger belts.  
[CSU; UC]

PE1.222. Step Aerobic Training (1, 1.5)  
**Pass/No Pass Option**  
**Semesters Offered:** Variable  
Aerobic exercise using a step platform introducing choreography techniques, music, and weights to increase exercise intensity and duration.  
[CSU; UC]

PE1.223. Adaptive Back Exercise Program (1.5)  
**Pass/No Pass Option**  
**Semesters Offered:** Variable  
A course designed for the individuals with back injuries which lasts several months or longer. This course is geared toward education, motivation and a supervised exercise program geared toward self-improvement and well being of the student’s back. This class is not designed to replace physical therapy, but to complement it and to continue once physical therapy has been terminated. This class is offered on an open-entry/open-exit basis. Students should complete an application in the DSPS Office for verification of eligibility for this class.  
[CSU; UC]

PE1.225. Advanced Volleyball (1, 1.5)  
**Pass/No Pass Option**  
**Semesters Offered:** Variable  
Designed to give experienced volleyball players an opportunity to strengthen his/her skills. Emphasis will be placed on performance in competitive situations during class time as preparation for life-long fitness.  
[CSU; UC]

PE1.228. Strength Training (1, 1.5)  
**Semesters Offered:** Variable  
A progressive weight training course designed to provide instruction in the techniques and training of muscular strength, muscular endurance and muscle definition through the use of free weights and machines. Course will begin with a health screening and baseline or functional capacity fitness assessment.  
[CSU; UC]

PE1.229. Hydro-Fitness (1, 1.5)  
**Semesters Offered:** Variable  
Cardiovascular exercise program performed in the pool. The workouts will include a warm-up, a series of arm and leg exercises using “Hydro-Fit” system apparatus, and a cool down.  
[CSU; UC]

PE1.230. Fundamentals of Football (1, 1.5)  
**Pass/No Pass Option**  
**Semesters Offered:** Variable  
Designed to develop the specific skills, techniques, and physical conditioning necessary to complete in intercollegiate football. Emphasis on individual game and special team skills, strategies and the NCAA rules of football.  
[CSU; UC]

PE1.232. Wall Climbing (1.5)  
**Pass/No Pass Option**  
**Semesters Offered:** Variable  
Designed to provide instruction in wall climbing while developing fitness, teamwork strategies and proficiency in wall climbing. This course introduces climbing as a sport in group format.  
[CSU; UC]

PE1.234. Intermediate Baseball (1.5)  
**Pass/No Pass Option**  
**Semesters Offered:** Variable  
Concepts and skills required to be a successful college athlete on a baseball team. Lecture, demonstration and field participation will be required. Review of offensive and defensive fundamentals, positional strategies, fitness and rules will be emphasized.  
[CSU; UC]

PE1.235. Yoga (1, 1.5)  
**Pass/No Pass Option**  
**Semesters Offered:** Variable  
Practice and philosophy of Yoga through Yoga poses. Yoga exercises linked to movement, mind, and breath to bring about a feeling of balance, relaxation, and harmony. Students will be required to supply their own mats.  
[CSU; UC]

PE1.236. Weight Training for Women (1.5)  
**Pass/No Pass Option**  
**Semesters Offered:** Variable  
An introduction to the study of free-weight lifting for women to specifically address their fitness concerns and special needs. Establishes opportunity for the further development of body flexibility, strength, and cardiovascular fitness for the female student. This class will focus on the practical application of free-weight lifting. Students will set up and design a personal weight-training program to fit their individual goals.  
[CSU; UC]

PE1.237. Adaptive Stress Reduction (1.5)  
**Pass/No Pass Option**  
**Semesters Offered:** Variable  
A course designed for the physically/psychologically challenged students to enhance his/her ability to recognize stressors in one’s life and practice techniques to help manage those influences. Emphasis on a wide variety of coping and relation techniques to include Tai Chi, stretching, diaphragmatic breathing, progressive relaxations, visualizations, autogenic training, cognitive restructuring, and other methods for decreasing stressful behaviors. Students should complete an application in the DSP&S Office for verification of eligibility for this class.  
[CSU; UC]

PE1.238 Stability Ball Training (1.5)  
**Pass/No Pass Option**  
**Semesters Offered:** Variable  
This course is designed to increase overall fitness using a Swiss stability ball. Emphasis on strengthening core muscle and on proper lifting techniques, strength, endurance and balance.  
[CSU; UC]

PE1.239 Badminton (1.5)  
**Pass/No Pass Option**  
**Semesters Offered:** Variable  
This course will introduce students to the techniques, knowledge, and strategies of badminton involving the fundamentals skills of badminton, such as: serve, forehand, primary shots, court strategy, rules, and etiquette of the game.  
[CSU; UC]

PE1.240 Ultimate Frisbee (1.5)  
**Pass/No Pass Option**  
**Semesters Offered:** Variable  
This course is designed to present throwing, catching and passing skills specific to the skills of Ultimate Frisbee and their application to team play. Class will cover offensive and defensive strategies.  
[CSU; UC]

PE1.241 Introduction to Bowling (1.5)  
**Pass/No Pass Option**  
**Semesters Offered:** Variable  
This course is designed to develop skills necessary to improve student performance in the sport of bowling. Fundamentals, techniques, rules, scoring, history and etiquette of the game of bowling will be emphasized. Progressive instruction emphasizes individual skill development, spot bowling and participation in a league situation.  
[CSU; UC]
PE.1.242 Introduction to Triathlon and Skill Development (2)  
Pass/No Pass Option  
Advisory: Basic swimming, biking, and running skills recommended.  
Lec 1 Hrs; Lab 3 Hrs  
Students will learn to design and implement personal training programs for triathlon events, including developing skills in open water swimming, cycling, and running. This course will provide focused emphasis on combining these skills for effective triathlon competition.  
[CSU; UC]

PE.1.243 Core Strengthening and Flexibility (1.5)  
Pass/No Pass Option  
Lec. 75 Hrs; Lab 2.25 Hrs  
This course is designed to increase muscle flexibility and physical movement. Balance, core strengthening and muscle awareness will be emphasized through a series of exercise and routines.  
[CSU; UC]

PE.1.244 Introduction to Mountain Biking (1, 0, 1.5)  
Semesters Offered: Variable  
Advisory: Designed to offer the novice/beginner cyclist the opportunity to learn to ride efficiently and safely, perform general bike maintenance, and gain experience riding trails of the Monterey Bay Area.  
[CSU; UC]

PE.1.245 Pilates Matwork Fundamentals (1, 1.5)  
Pass/No Pass Option  
Advisory: Designed to enhance the fundamental understanding of Core Strength and Stabilization as it applies to movement. Proper progression of form and technique will be explored. This class is appropriate for beginners as well as those with experience.  
[CSU; UC]

PE.1.246 Adaptive Spinal Stabilization (5, 1, 1.5)  
Pass/No Pass Option  
Semesters Offered: Variable  
A course designed for the individual with a back injury, spinal disease, and/or dysfunction. This course is designed to implement a specialized back exercise program to develop and improve functionality of the back. This class is not designed to replace physical therapy, but to complement it and to continue an exercise program once physical therapy has been terminated. This class is offered on an open/entry, open/exit basis. Students should see their counselors for the appropriate DSPS forms for verification of eligibility for this class. Students will be required to supply their own mats.  
[CSU; UC]

PE.1.247 Adaptive Coping Techniques (5, 1)  
Pass/No Pass Option  
Semesters Offered: Variable  
Advisory: Designed for students who wish to recognize, manage and practice techniques to control stressors. Emphasis on a variety of coping strategies, relaxation techniques, Tai Chi, visualization and diaphragmatic breathing. Students will be required to supply their own mats.  
[CSU; UC]

PE.1.248 Speed Training and Conditioning (1, 1.5)  
Pass/No Pass Option  
Semesters Offered: Variable  
The development of strategies and techniques to increase speed and improve agility utilizing the fitness components of cardiovascular/respiratory conditioning, muscular strength and endurance, and flexibility.  
[CSU]

PE.3.510 Intercollegiate Baseball (2)  
Semesters Offered: Variable  
Advanced techniques and strategies of competitive intercollegiate baseball competition. Approximately thirty-two intercollegiate games.  
[CSU; UC]

PE.3.511 Intercollegiate Basketball for Men (5, 1, 1.5)  
Semesters Offered: Variable  
Advanced techniques and strategies for competitive intercollegiate basketball competition. Approximately twenty-eight intercollegiate scheduled games.  
[CSU; UC]

PE.3.512 Varsity Basketball for Women (5, 1, 1.5)  
Semesters Offered: Variable  
Advanced techniques and strategies of women's competitive intercollegiate basketball competition. Approximately twenty-eight scheduled games.  
[CSU; UC]

PE.3.513 Intercollegiate Football (2)  
Semesters Offered: Variable  
Advanced techniques and strategies of competitive intercollegiate football competition. Approximately ten intercollegiate scheduled games.  
[CSU; UC]

PE.3.514 Intercollegiate Soccer (2)  
Semesters Offered: Variable  
An advanced course designed to develop techniques and strategies of intercollegiate soccer competition. Approximately twenty-five games are scheduled.  
[CSU; UC]

PE.3.515 Intercollegiate Softball for Women (2)  
Semesters Offered: Variable  
Advanced techniques and strategies of competitive intercollegiate softball competition. Thirty-two intercollegiate games.  
[CSU; UC]

PE.3.516 Intercollegiate Volleyball for Women (2)  
Semesters Offered: Variable  
Advanced techniques and strategies of women's competitive intercollegiate volleyball competition. Approximately twenty-eight scheduled games.  
[CSU; UC]

PE.3.530 Intercollegiate Cross Country (2)  
Semesters Offered: Variable  
Techniques and strategies for intercollegiate cross country competition. Approximately ten intercollegiate meets are scheduled.  
[CSU; UC]

PE.3.531 Intercollegiate Track and Field (2)  
Semesters Offered: Variable  
Intercollegiate track and field using advanced skills, techniques, and strategies. Eighteen intercollegiate competitions.  
[CSU; UC]

PE.15. Care and Prevention of Athletic Injuries (4)  
Semesters Offered: Variable  
This course is designed to prepare prospective coaches, athletic trainers, and physical educators in the recognition, evaluation and care of athletic injuries. Laboratory activities will be included that provide direct application of classroom content.  
[CSU; UC]

PE.16. Concepts of Fitness and Wellness (3)  
Semesters Offered: Variable  
This course will introduce the basic concepts of fitness, nutrition, health promotion and disease prevention. The students will gain knowledge to make intelligent choices that contribute to a healthy lifestyle. The course will incorporate both lecture and physical activity laboratory assignments.  
[CSU; UC]

PE.20. Introduction to Physical Education (2)  
Lec. 75 Hr; Lab 2.25 Hrs  
Semesters Offered: Variable  
Orientation course in Physical Education to develop a basic understanding of the profession. Topics include history, philosophy, and current trends in the fitness and wellness area.  
[CSU; UC]

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PHYSICAL EDUCATION

PE32. Hiking and Backpacking (2)

Lec 1 Hr; Lab 3 Hrs

Semesters Offered: Variable
An introduction to the sport of hiking and backpacking. Emphasis on basics of minimum impact camping, wilderness safety navigation, shelter use and site selection, backcountry cooking, wilderness medicine, clothing and equipment selection, group dynamics, and leadership skills. This course requires day-and overnight-participation on field trips.

[CSU; UC]

PE42. Leadership in Physical Education and Sports (2)

Semesters Offered: Variable
Methods in teaching and coaching physical education classes and teams at a junior high and high school level. Students are under the supervision of school instructors.

[CSU]

PE45. Special Projects (1-3)

Semesters Offered: Variable
Designed for Physical educational students who are interested in investigating topics beyond the scope of an existing Physical Education course. Students will gain hands-on experience in specialized Physical Education research. This course may be taken thee times with different or advanced content for a maximum of nine units.

[CSU]

PE51A. Theory & Analysis of Football I (2)

Semesters Offered: Variable
Beginning techniques and strategies of football as played at the intercollegiate and professional levels. Advanced skills, strategies, and rules of the game are discussed and analyzed while engaging in supervised and repetitive play.

[CSU; UC]

PE51B. Theory & Analysis of Football II (2)

Semesters Offered: Variable
Beginning and intermediate techniques and strategies of football as played at the intercollegiate and professional levels. Advanced skills, strategies, and rules of the game are discussed and analyzed while engaging in supervised and repetitive play.

[CSU; UC]

PE51C. Theory & Analysis of Football III (2)

Semesters Offered: Variable
Intermediate and advanced techniques and strategies of football as played at the intercollegiate and professional levels. Advanced skills, strategies and rules of the game are discussed and analyzed while engaging in supervised and repetitive play.

[CSU; UC]

PE51D. Theory & Analysis of Football IV (2)

Semesters Offered: Variable
Advanced techniques and strategies of football as played at the intercollegiate and professional levels. Advanced skills, strategies, and rules of the game are discussed and analyzed while engaging in supervised and repetitive play.

[CSU; UC]

PE51E. Theory & Analysis of Track I (2)

Semesters Offered: Variable
Beginning/Intermediate techniques and strategies of track and field as played at the intercollegiate and professional levels. Skills, strategies and rules of the game are discussed and analyzed while engaging in supervised and repetitive play.

[CSU; UC]

PE51F. Theory & Analysis of Track II (2)

Semesters Offered: Variable
Advanced techniques and strategies of track and field as played at the intercollegiate and professional levels. Advanced skills, strategies and rules of the game are discussed and analyzed while engaging in supervised and repetitive competition.

[CSU; UC]

PE52A. Theory & Analysis of Basketball I (2)

Semesters Offered: Variable
Intermediate/advanced techniques and strategies of basketball as played at the intercollegiate and professional levels are discussed and analyzed while engaging in supervised and repetitive play. Theory and applications of coaching basketball rules, interpretation and psychological motivation will be stressed.

[CSU; UC]

PE52B. Theory & Analysis of Basketball II (2)

Semesters Offered: Variable
Advanced techniques and strategies of basketball as played at the intercollegiate and professional levels are discussed and analyzed while engaging in supervised and repetitive play. Theory and applications of coaching basketball, rules, interpretation and psychological motivation will be stressed. Emphasis will focus on coaching strategies and techniques for the students wishing to coach basketball.

[CSU; UC]

PE53A. Theory & Analysis of Baseball I (2)

Semesters Offered: Variable
Intermediate/advanced techniques and strategies of baseball as played at the intercollegiate and professional levels. Advanced skills, strategies and rules of the game are discussed and analyzed while engaging in supervised and repetitive play.

[CSU; UC]

PE53B. Theory & Analysis of Baseball II (2)

Semesters Offered: Variable
Advanced techniques and strategies of baseball as played at the intercollegiate and professional levels. Skills, strategies and rules of the game are discussed and analyzed while engaging in supervised and repetitive play.

[CSU; UC]

PE54A. Theory & Analysis of Softball I (2)

Semesters Offered: Variable
A lecture course designed to develop a thorough understanding of the game of softball. Individual skills, basic offensive and defensive strategies, theories, and techniques of coaching and rules of the game are discussed and analyzed.

[CSU; UC]

PE54B. Theory & Analysis of Softball II (2)

Semesters Offered: Variable
Advanced techniques and strategies of track and field as played at the intercollegiate and professional levels. Advanced skills, strategies and rules of the game are discussed and analyzed while engaging in supervised and repetitive competition.

[CSU; UC]

PE55A. Theory & Analysis of Volleyball I (2)

Semesters Offered: Variable
Intermediate/advanced techniques and strategies of volleyball as played at the intercollegiate and professional levels are discussed and analyzed while engaging in supervised and repetitive play. Theory and applications of coaching volleyball, rules, interpretation and psychological motivation will be stressed.

[CSU; UC]

PE55B. Theory & Analysis of Volleyball II (2)

Semesters Offered: Variable
Advanced techniques and strategies of volleyball as played at the intercollegiate and professional levels are discussed and analyzed while engaging in supervised and repetitive play. Theory and applications of coaching volleyball, rules, interpretation and psychological motivation will be stressed. Emphasis will focus on coaching strategies and techniques for the students wishing to coach volleyball.

[CSU; UC]

PE55C. Theory & Analysis of Soccer I (2)

Semesters Offered: Variable
Provides students with the advanced concepts, theories and techniques of coaching and playing intercollegiate and interscholastic soccer.

[CSU; UC]

PE55D. Theory & Analysis of Soccer II (2)

Semesters Offered: Variable
Provides students with the advanced concepts, theories and techniques of coaching and playing intercollegiate and interscholastic soccer.

[CSU; UC]

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PHYSICS

PHY2A. College Physics I (4)  
**Prerequisite:** Math 24 with a grade of C or better.  
**Lab** 4 Hrs; **Lab** 3 Hrs  
**Semesters Offered:** Variable  
Lectures and laboratories covering vectors, motion, forces, gravity, satellites, work, energy, momentum, rotational motion, mechanical properties of matter and heat. Required for pre-medical, pre-dental, biology, pharmacy and physical therapy majors.  
[CSU; UC; CSU-GE, AREA B1, B3; IGETC AREA 5]

PHY2B. College Physics II (4)  
**Prerequisite:** Physics 2A with a grade of C or better.  
**Lab** 4 Hrs; **Lab** 3 Hrs  
**Semesters Offered:** Variable  
A continuation of PHY-2A. Lectures and laboratories covering waves, sound, light, electricity, magnetism, atomic and nuclear physics. Required for pre-medical, pre-dental, biology, pharmacy and physical therapy majors.  
[CSU; UC; CSU-GE, AREA B1, B3; IGETC AREA 5]

PHY4A. General Physics/Mechanics (4)  
**Prerequisite:** Math 3A with a grade of C or better.  
**Lab** 4 Hrs; **Lab** 3 Hrs  
**Semesters Offered:** Variable  
Lectures and laboratories covering vectors, particle kinematics and dynamics, work, energy, momentum, angular momentum, conservation laws, rigid bodies, oscillations. Required for engineering and physical science majors. Strongly recommended for math majors.  
[CSU; UC; CSU-GE, AREA B1, B3; IGETC AREA 5]

PHY4B. General Physics/Electricity and Magnetism (4)  
**Prerequisite:** Physics 4A with a grade of C or better.  
**Lab** 4 Hrs; **Lab** 3 Hrs  
**Semesters Offered:** Variable  
Electric charges and currents, electric and magnetic fields, capacitance, inductance and resistance. Electric circuits, Kirchhoff’s laws, Maxwell’s equations, electromagnetic oscillations and waves. Required for engineering and physical science majors. Strongly recommended for math majors.  
[CSU; UC; CSU-GE, AREA B1, B3; IGETC AREA 5]

PHY4C. General Physics/Waves, Heat, Light and Modern Physics (4)  
**Prerequisite:** Physics 4A with a grade of C or better.  
**Lab** 4 Hrs; **Lab** 3 Hrs  
**Semesters Offered:** Variable  
[CSU; UC; CSU-GE, AREA B1, B3; IGETC AREA 5]

PHY10. Introduction to Physics (4)  
**Advisory:** MAT 121 or MAT 151  
**Lab** 3 Hrs; **Lab** 3 Hrs  
**Semesters Offered:** Variable  
A brief presentation of some of the more important and interesting phenomena in physics. Lecture and laboratory covering falling bodies, Newton’s laws of motion, satellite and planetary motion, heat, light, sound, waves, atomic structure, nuclear physics, energy, electricity and magnetism. Emphasis is on developing a practical understanding of principles rather than a detailed mathematical treatment. Open to students with or without high school physics, but not open to those who have credit for or are taking concurrently Physics 2A, 2B, 4A, 4B, or 4C.  
[CSU; UC CSU-GE, AREA B1, B3; IGETC AREA 5]

PHY45. Special Projects (1-3)  
**Semesters Offered:** Variable  
Laboratory work in the field of physics. Enables the student to investigate topics beyond the scope of the regular physics courses. This course may be taken three times with different or advanced content for a maximum of nine units  
[CSU]

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POL1. American Political Institutions (3)
Advisory: See Below.
Lab 3 Hrs
Semesters Offered: Variable
Introduction to the U.S. Constitution, American political institutions, and California state government. Topics include basic concepts from political philosophy, constitutional law, institutions of the federal government, political parties and elections, federalism, public opinion, the media, interest groups, and civil liberties and civil rights. Contemporary issues in political science will be presented from a variety of viewpoints.
[CSU; UC; CSU-GE, AREA D8; IGETC, AREA 4]

POL2. Contemporary Governments Abroad (3)
Lab 3 Hrs
Semesters Offered: Variable
This course is focused on comparative studies regarding contemporary governments abroad and their role in the ongoing process of political and economic globalization. The forms of government studied in this course include parliamentary democracy, federal republic, direct democracy, authoritarian regime, and theocracy. Studies focus on a country's political economy and development, governance and policy-making, representation and participation, and politics in transition. Contemporary issues in comparative government will be presented from a variety of viewpoints.
[CSU; UC; CSU-GE, AREA D8; IGETC, AREA 4]

POL3. Introduction to International Relations (3)
Lec 3 Hrs
Semesters Offered: Variable
Focused on the practice and theory of international relations within the framework of traditional orientations and alternative approaches to international politics. Traditional orientations and alternative approaches to international politics are utilized to analyze divergent political orientations, organizational structures, approaches to conduct, and pursuing peace. Topics include the evolution of world politics, levels of analysis and foreign policy, nationalism, globalization and transnationalism, the nation-state, intergovernmental organizations, national power, international law and justice, national security, and international security. Contemporary issues in international relations will be presented from a variety of viewpoints.
[CSU; UC; CSU-GE, AREA D8; IGETC, AREA 4]

POL5. Chicano Politics and the American Political System (3)
Lec 3 Hrs
Semesters Offered: Variable
A survey of U.S. and California political institutions, including the U.S. Constitution as it relates to Chicanos. Contemporary events in politics at the local, state and national level will be presented from a Chicano perspective. Chicano organizations, political models, ideology, political participation, and leadership will be studied. The role of race, class, immigration status, sex, gender, identity and the struggle for social justice, equality and political participation will be examined. The role of the media and polling will also be examined. Not open to students who have completed ETH-5 with a grade of "C" or better.
[CSU; UC; CSU-GE, AREA D3, D8; IGETC, AREA 4]

POL45. Special Projects (1-3)
Semesters Offered: Variable
A supervised program of independent research and study in Political Science. Completion of Political Science 1 or the equivalent recommended.
[CSU]

Advisory: Students taking online courses must have basic computer skills for operating Microsoft Word and e-mail, including sending attachments and files. Students also need access to the Internet and must have adequate hardware and software capabilities. Access to computers is also available at the Hartnell College Library/LRC.
PSY2. General Psychology (3)  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
Introduction to the fundamental principles and concepts of human behavior and mental processes. Topics include psychology as a science, biological bases of behavior, lifespan development, perception, conditioning and learning, memory, cognition, motivation and emotion, personality, psychological disorders, methods of therapy, and social and applied psychology. Recommended for college and university transfer students. Not open to students who have completed PSY-1A with a grade of "C" or better.  
[CSU; UC; CSU-GE, AREA D9; IGETC, AREA 4]

PSY8. Research Methods in Psychology (3)  
**Prerequisite:** Psychology 1A or 2 with a grade of C or better.  
**Advisory:** MAT-13, Eligibility for ENG-1A.  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
Scientific methods of investigating behavior and mental processes. Students will understand and apply basic research methods in psychology, including research design, review of professional literature, data analysis, and interpretation. The ethics of research with human and animal subjects will be included.  
[CSU; CSU-GE, AREA D9]

PSY10. Introduction to Biological Psychology (3)  
**Prerequisite:** Psychology 1A or 2 with a grade of C or better.  
**Advisory:** BIO-11  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
An advanced consideration of the relationship between the brain and behavior emphasizing the structure and function of neurons and other components of the nervous system. The contributions, philosophy and ethics of research on humans and animals will be examined. Other topics include brain-behavior relationships underlying the psychological phenomena of sensation, perception, regulatory processes, emotion, motivation, learning, memory, language and cognition as well as disorders that arise from nervous system malfunctioning.  
[CSU; CSU-GE, AREA B2; IGETC, AREA 5]

PSY14. Child Psychology (3)  
**Lab 3 Hrs**  
**Semesters Offered:** Variable  
A survey of the psychological growth from conception through adolescence. Particular emphasis is given to physical, cognitive, and emotional development as well as biological and social influences. Topics will include an analysis of classic and contemporary theories and issues within the field of human development.  
[CSU; UC; CSU-GE AREA D9; E; IGETC, AREA 4]

PSY15. Human Sexuality (3)  
**Lab 3 Hrs**  
**Semesters Offered:** Variable  
A current and comprehensive introduction to the topic of human sexuality from the perspective of psychology. Laboratory and survey research, findings from clinical experience, and historical sources will be considered. Topics to be discussed (but not limited to) include sexual anatomy, sexual beliefs and expressions, and concerns related to human sexuality. The medical aspects including the various methods of contraception and safer sex practices will be evaluated.  
[CSU; UC; CSU-GE AREA E]

PSY17. Adjustment (3)  
**Prerequisite:** PSY-1A or 2 with a grade of C or better.  
**Lab 3 Hrs**  
**Semesters Offered:** Variable  
An advanced consideration of the theories and issues related to human development, adjustment, and maintenance of human behavior. Emphasis is placed on understanding normal development and adjusting to life changes. Methods of therapy, and social and applied psychology.  
[CSU; UC; CSU-GE AREA D9; IGETC, AREA 4]

PSY22. Abnormal Psychology (3)  
**Prerequisite:** PSY-1A or 2 with a grade of C or better.  
**Lab 3 Hrs**  
**Semesters Offered:** Variable  
An introduction to the research and theories regarding the major types of psychopathology, including schizophrenia, and the anxiety, mood, dissociative, somatoform, and personality disorders. Emphasis on understanding the symptoms, causes, treatments and prevention of the disorders as viewed from the psychological, social and biological perspectives.  
[CSU; UC; CSU-GE AREA D9; IGETC, AREA 4]

PSY23. Personal and Social Adjustment (3)  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
Theories of development and maintenance of a healthy personality. Common difficulties in personal and social adjustment will be explored, as well as the application of specific techniques and methods to overcome those challenges. Contemporary theories of personality structure and approaches to personal growth are examined over the life span. Other topics include stress management and improving one's interpersonal relationships in family, social and occupational contexts. Adjustment to health issues and psychological disorders will be explored.  
[CSU; CSU-GE AREA D9; E]

PSY24. Forensic Psychology (3)  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
An examination of the psychological principles of communication as they apply to the development and maintenance of human relationships. Topics discussed include (but are not limited to) effective communication skills, relationship dynamics, intimacy, managing difficult emotions, and conflict resolution.  
[CSU; CSU-GE AREA D9; E]

PSY25. Psychology of Women (3)  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
An introduction to the psychology of women. The course will consider anatomy and physiology, fertility, contraception, and safer sex practices, as well as issues related to pregnancy and childbirth. Other topics will include sexual anatomy, sexual beliefs and expressions, and concerns related to human sexuality. The medical aspects including the various methods of contraception and safer sex practices will be evaluated.  
[CSU; UC; CSU-GE AREA D9; IGETC, AREA 4]

PSY36. Psychology of “La Mujer” (3)  
**Advisory:** Eligibility of English 1A  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
Explores the developmental processes of the Chicana/Latina psyche from birth to death to include the study of the behavioral, physiological, and psychological experiences that influence behavior and self-image. Analyzes the Chicana/Latina by addressing the following course themes: racism, sexism, gender, feminism, work, sexuality, education, and the structure of social inequality. Students will explore methods to enhance the development of Chicana/Latina women’s full potential and optimum mental health.  
[CSU; UC; CSU-GE AREA D3, D4, D7, E; IGETC, AREA 4]

PSY37. Psychology of Human Relations (3)  
**Lab 3 Hrs**  
**Semesters Offered:** Variable  
A study of the psychological principles of communication as they apply to the development and maintenance of human relationships. Topics discussed include (but are not limited to) effective communication skills, relationship dynamics, intimacy, managing difficult emotions, and conflict resolution.  
[CSU; CSU-GE AREA D9; E]

PSY42. Psychology of Women (3)  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
An examination of the psychological, cultural, social and biological factors influencing women's beliefs and behaviors across the life span. Topics include gender stereotypes, development of gender roles, gender comparisons, women and work, love relationships, women's physical and mental health, violence against women, and women in later adulthood. Students who take this course should acquire an understanding of what it means to be female in the U.S.  
[CSU; UC; CSU-GE AREA D4, D7, E; IGETC, AREA 4]

PSY45. Special Projects (1-3)  
**Semesters Offered:** Variable  
A supervised program for exceptional students to conduct independent research and study into a particular field of psychology.  
[CSU]
RE140. Real Estate License Preparation (3)
Pass/No Pass Option
Prerequisite: Completion of with a grade of C or better or concurrent enrollment in Real Estate 144, Principles of Real Estate.
Lec 3 Hrs
Semesters Offered: Variable
The student is introduced to study materials useful in preparing for the Real Estate Salesman and Broker Examinations. Subject matter that should be concentrated upon for the examination is emphasized with practice exams similar to, but not taken from, California Real Estate Exam.

RE144. Principles of Real Estate (3)
Lec 3 Hrs
Semesters Offered: Variable
Emphasis on consumer education in the overall sale, purchase and finance of residential real estate in the state of California. This class meets one of the three requirements set by the State of California for the Real Estate Salesperson examination.

RE145. Real Estate Practices (3)
Lec 3 Hrs
Semesters Offered: Variable
An introduction to the practical application of the real estate knowledge necessary when working in real estate. This class meets one of the three requirements set by the State of California for the Real Estate Salesperson examination.

RE146. Legal Aspects of Real Estate (3)
Pass/No Pass Option
Advisory: See Below.
Lec 3 Hrs
Semesters Offered: Variable
A study of California real estate law, including real property law, governmental regulation of property, contracts, agency, and practical concerns relating to real estate sales agents and brokers. This course is required for the California real estate broker's license.

RE147. Real Estate Finance (3)
Pass/No Pass Option
Advisory: RE-144 with a grade of "C" or better.
Lec 3 Hrs
Semesters Offered: Variable
Study and analysis of money markets, prime rates, discount rates, real estate financing and the rules involved in financing residential, multi-family and commercial property. Includes the study of the Federal Reserve Bank and how it works in the monetary system. This is a required course for the California Department of Real Estate Broker Exam.

RE148. Real Estate Appraisal (3)
Pass/No Pass Option
Advisory: RE-144 with a grade of "C" or better.
Lec 3 Hrs
Semesters Offered: Variable
Introduction to the appraisal process, particularly as it relates to single-family dwellings. Topics include: different approaches to determining property value, the appraisal process, data collection and analysis, building classifications and financial institutions. Case studies are supplemented by fieldwork and the use of the short forms used in the appraisal.

RE149. Real Estate Economics (3)
Pass/No Pass Option
Lec 3 Hrs
Semesters Offered: Variable
A practical study of the economic aspects of real estate designed to provide a grasp of the factors that affect and create value in today's market place. This course covers the different factors that will affect the value of real estate due to supply and demand, financial requirements and the overall economic situation in the local, state, federal and world economy.

RE150. Property Management (3)
Lec 3 Hrs
Semesters Offered: Variable
Acquaints students with Real Estate Management. Includes responsibilities, procedures, operating statement preparation, income and expense analysis, leasing, neighborhood analysis as well as income and market analysis, and the management of various types of properties.

RE153. Escrow Procedures (3)
Lec 3 Hrs
Semesters Offered: Variable
An introduction to the terminology and mechanics of escrow functions involved in real estate transactions. Specifically designed with particular emphasis on the mechanics of taking, processing and closing escrows.
SCI124. Science, Technology, Engineering and Mathematics (STEM) Internship Preparation (1)
  Lec 1 Hr
  Semesters Offered: Variable
  This course provides assistance for students to develop knowledge, skills, and attitudes for success in Science, Technology, Engineering and Mathematics (STEM) internship programs. Student preparation will focus on abstract writing, poster creation, Excel, project management, PowerPoint, presentation delivery, and discipline specific skills. Prospective interns will work to develop attitudes that promote discussion, observation, teamwork, network building, and personal confidence.

SCI300. GED/Science (0)
  NG
  Lab 5Hrs
  Semesters Offered: Variable
  Prepares students to pass the science component of the GED test and includes content for life science, earth and space science, and physical science. Focuses on comprehension, application, analysis, and evaluation skills.

SOC300. GED/Social Studies (0)
  NG
  Lab 5Hrs
  Semesters Offered: Variable
  Prepares students to pass the social studies component of the GED test and includes content for US history, world history, civics and government, geography, and economics. Focuses on comprehension, application, analysis, and synthesis thinking skills.

SOC1. Introduction to Sociology (3)
  Lec 3 Hrs
  Semesters Offered: Variable
  A general introduction to the study of social interaction and the organization of modern society. Topics include culture; social structure; socialization; deviance and crime; class, ethnicity, and gender; social institutions; collective behavior and social movements; and demography and urbanization.
  [CSU; UC; CSU-GE, AREA D0; IGETC, AREA 4]

SOC5. Introduction to Social Problems (3)
  Lec 3 Hrs
  Semesters Offered: Variable
  Identification and examination of contemporary social problems in American society. The analysis of problems of social institutions (including the economy, government, and family), problems of social inequality (including poverty, race, ethnicity, and gender), deviance (including crime and substance abuse), and demographic problems (population and urbanization) will serve as focal points for the course.
  [CSU; UC; CSU-GE, AREA D0, E; IGETC, AREA 4]

SOC41. Marriage and the Family (3)
  Lec 3 Hrs
  Semesters Offered: Variable
  Examines the family as a social institution with an emphasis on contemporary theory and research findings pertinent to family life. Topics include trends in family form, issues, problems, and functioning of the family in American society, as well as family organization in different ethnic, cultural, and historic settings.
  [CSU; UC; CSU-GE, AREA D0, E; IGETC, AREA 4]

SOC42. The Sociology of Minority Relations (3)
  Lec 3 Hrs
  Semesters Offered: Variable
  The principal objective of this course is to examine dominant-minority group relations in the United States (U.S.), with emphasis on contemporary America. The experiences of minority groups, including Latinos, African-Americans, Asian-Americans, and Native Americans, will be considered from various sociological perspectives.
  [CSU; UC CSU-GE, AREA D0, D1; IGETC, AREA 4]

SOC45. Special Projects (1-3)
  Semesters Offered: Variable
  A supervised program of observation of the work of social agencies in the community or a program of research into a particular area of the discipline of sociology. Completion of Sociology 1 recommended.
  [CSU]
SPA1. Elementary Spanish (5)
Pass/No Pass Option
Lec 5 Hrs
Semesters Offered: Variable
Fundamentals of Spanish with emphasis on the development of listening, speaking, reading, and writing skills, with Spanish as the primary language of instruction. Language acquisition will be enhanced by exposing students to the life, people, and cultures of the Spanish speaking world. Course designed for students with no prior background in Spanish. Not open to students who have taken Spanish 1S or Spanish 1X.
[CSU; UC; CSU-GE; AREA C2; IGETC, AREA 6]

SPA1A. Elementary Spanish (2.5)
Pass/No Pass Option
Lec 2.5
Semesters Offered: Variable
This two-semester sequence (Spanish 1A, Spanish 1B) is equivalent to Spanish 1. The course will cover the fundamentals of Spanish with emphasis on the development of listening, speaking, reading, and writing skills, with Spanish as the primary language of instruction. Language acquisition will be enhanced by exposing students to the life, people, and cultures of the Spanish speaking world. Not open to students who have completed Spanish 1, Spanish 1S, or Spanish 1X with a grade of C or better.
[CSU; UC]

SPA1B. Elementary Spanish (2.5)
Pass/No Pass Option
Prerequisite: Spanish 1A with a grade of C or better or demonstration of language proficiency to level.
Lec 2 Hrs; Lab .5 Hrs
Semesters Offered: Variable
This two-semester sequence (Spanish 1A, Spanish 1B) is equivalent to Spanish 1. The course will cover the fundamentals of Spanish with the emphasis on the development of listening speaking reading, and writing skills, with Spanish as the primary language of instruction. Language acquisition will be enhanced by exposing students to the life, people, and cultures of the Spanish speaking world. Not open to students who have completed Spanish 1, Spanish 1S, or Spanish 1X with a grade of C or better.
[CSU; UC; IGETC AREA 6]

SPA1S. Elem. Spanish Speakers (5)
Pass/No Pass Option
Lec 5 Hrs
Semesters Offered: Variable
A parallel Spanish 1 course for Spanish speakers, conducted totally in Spanish with emphasis on grammar and writing. An oral command of the Spanish language required. Not open to students who have successfully completed Spanish 1.
[CSU; UC CSU-GE AREA C2, IGETC, AREA 6]

SPA1X. Elementary Spanish for Chicano Students (5)
Pass/No Pass Option
Lec 5 Hrs
Semesters Offered: Variable
A parallel Spanish 1 and Spanish 1S course designed for English dominant Chicano students whose home languages include Spanish. This course will serve any student who has an auditory comprehension and a basic oral command of Spanish. Course conducted primarily in Spanish with emphasis on speaking, reading, writing, and grammar. Not open to students who have successfully completed Spanish 1 or Spanish 1S.
[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 6]

SPA2. Elementary Spanish (5)
Pass/No Pass Option
Prerequisite: Spanish 1 with a grade of C or better or (two years of high school Spanish with a grade of C or higher.)
Lec 5 Hrs
Semesters Offered: Variable
Continuation of Spanish 1 with further development of listening, speaking, reading, and writing skills, with Spanish as the primary language of instruction. Language acquisition will be enhanced by exposing students to the life, people, and cultures of the Spanish speaking world. Not open to students who have taken Spanish 2S or Spanish 2X.
[CSU; UC; CSU-GE, AREA C2, IGETC, AREA 6]

SPA2S. Elementary Spanish for Chicano Students (5)
Pass/No Pass Option
Prerequisite: SPA 1S or SPA 1X or SPA 1, or demonstration of language proficiency to level.
Lec 5 Hrs
Semesters Offered: Variable
A parallel Spanish 1 and Spanish 1S course for Spanish speakers, conducted totally in Spanish with greater emphasis on reading, writing, and grammar. Not open to students who have completed Spanish 1 or Spanish 1X with a grade of C or better.
[CSU; UC; CSU-GE ; AREA C2; IGETC, AREA 6]

SPA2X. Elementary Spanish for Chicano Students (5)
Pass/No Pass Option
Prerequisite: Spanish 1X or Spanish 1S or Spanish 1, or demonstration of language proficiency to level. This proficiency is determined according to Hartnell College’s Prerequisite Clearance and Challenge processes. All prerequisites must be completed with a grade of C or better.
Lec 5 hrs
Semesters Offered: Variable
A parallel Spanish 2 and Spanish 2S course designed for English dominant Chicano students who home languages include Spanish. This course will serve any student whose first language is not Spanish, but who has an oral command of Spanish. Course conducted primarily in Spanish with emphasis on speaking, reading, writing, and grammar. Not open to students who have completed Spanish 2 or Spanish 2S with a grade of C or better.
[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 6]

SPA3. Intermediate Spanish (5)
Pass/No Pass Option
Prerequisite: Spanish 2 or Spanish 2S or Spanish 2X, or three years of high school Spanish, or demonstration of proficiency to level. This proficiency is determined according to Hartnell College’s Prerequisite Clearance and Challenge processes. All prerequisites must be completed with a grade of C or better.
Lec 5 Hrs
Semesters Offered: Variable
A course conducted totally in Spanish with further emphasis on grammar, reading and writing, including a strong cultural and literary component. Not open to students who have completed Spanish 3S with a grade of “C” or better.
[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 6]

SPA3S. Intermediate for Spanish Speakers (5)
Pass/No Pass Option
Prerequisite: Spanish 2S or Spanish 2X or Spanish 2, or demonstration of language proficiency to level. This proficiency is determined according to Hartnell College’s Prerequisite Clearance and Challenge Processes. All prerequisites must be completed with a grade of C or better.
Lec 5 Hrs
Semesters Offered: Variable
A parallel Spanish 2 course for Spanish speakers, conducted totally in Spanish with further emphasis on grammar, reading and writing, including a strong cultural and literary component. Not open to students who have completed Spanish 3 with a grade of C or better.
[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3B, 6]

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SPANISH

SPA4. Intermediate Spanish (5)
Pass/No Pass Option
Prerequisite: Spanish 3 or 3S, or four years of high school Spanish, or demonstration of proficiency to level. This proficiency is determined according to Hartnell College’s Prerequisite Clearance and Challenge Processes.
Lec 5 Hrs
Semesters Offered: Variable
Continuation of Spanish 3. A course conducted totally in Spanish with further emphasis on grammar, reading and writing, including a strong cultural and literary component. Not open to students who have completed Spanish 4S with a grade of “C” or better.
[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 6]

SPA4S. Intermediate Spanish for Spanish Speakers (5)
Pass/No Pass Option
Prerequisite: Spanish 3S or Spanish 3, or demonstration of proficiency to level. This proficiency is determined according to Hartnell College’s Prerequisite Clearance and Challenge processes. All prerequisites must be completed with a grade of C or better.
Lec 5 Hrs
Semesters Offered: Variable
A parallel Spanish 4 course for Spanish speakers conducted totally in Spanish with further emphasis on advanced grammar, intensive reading and writing, including a strong cultural and literary component. Not open to students who have completed Spanish 4 with a grade of “C” or better.
[CSU; UC CSU-GE, AREA C2; IGETC, AREA 3B, 6]

SPA35. Literatura chicana (3)
Pass/No Pass Option
Prerequisite: SPA-2, SPA-2S, or SPA-2X with a grade of “C” or better.
Advisory: ENG-101 or ESL-101 with a grade of “C” or better.
Lec 3 Hrs
Semesters Offered: Variable
This course will be taught in Spanish.
A survey of Chicana/Chicano literature focusing on important themes and issues as they relate to the Chicana/Chicano experience in American society. Readings may include poetry, novels, short stories, theater, and essays. Since much of the reading material is written in English or in a bilingual mode, students must be able to read in English and be able to read, write, and speak in Spanish.
[CSU; UC CSU-GE, AREA C2; IGETC, AREA 3]

SPA45. Special Projects (1-3)
Pass/No Pass Option
Prerequisite: Three years of high school Spanish or two semesters college Spanish. All prerequisites must be completed with a grade of C or better.
Semesters Offered: Variable
Individual and group investigation of topics and problems beyond the scope of regular Spanish courses.
[CSU]

SPEECH

SPE1A. Essentials of Public Speaking (3)
Prerequisite: English 101 with a grade of C or better or eligibility for Eng. 1A.
Lec 3 Hrs
Semesters Offered: Variable
This communication class meets the CSU oral communication requirements and focuses on the student's ability to present his/her ideas in the public setting with confidence and poise. The students will learn basic methods of designing and delivering speeches to reach a variety of audiences. Students will be required to create and deliver an electronic (PowerPoint) presentation.
[CSU; UC; CSU-GE, AREA A1; IGETC, AREA 1]

SPE3. Introduction to Communication (3)
Prerequisite: Eligibility for Eng. 1A.
Lec 3 Hrs
Semesters Offered: Variable
Allows the student to explore all aspects of communication. Introduction to communication theory in interpersonal, small group, public speaking and mass communication. Emphasis on analytical and organizational skills in communication in each of the four contexts. Participation in exercises in listening, verbal and non-verbal behaviors, and cultural and intercultural communication. The student will be required to perform at least three public presentations during the course.
[CSU; UC CSU-GE, AREA A1; IGETC, AREA 1]

SPE5. Introduction to Organizational Communication (3)
Prerequisite: Eligibility for Eng. 1A
Lec 3 Hrs
Semesters Offered: Variable
Presents the oral communication skills required to succeed in different business contexts. Areas of study include communication theory in dyads, small groups, leaderless groups and business presentations. Some areas of study would include: sexual harassment, meeting organization, problem solving and negotiations, interviewing, and cultural issues in the workplace. Not open to students who have completed BUS-5 with a grade of “C” or better.
[CSU; UC-CSU-GE, AREA A1]

SPE8. Interpersonal Communication (3)
Lec 3 Hrs
Semesters Offered: Variable
This course develops the student's knowledge and skills in person to person communication. The student will learn and apply, in daily life, elements of communication essential to effective relationships between individuals: family, friendship, romantic, workplace, and intercultural. Focus includes listening, managing emotions, relationship development and maintenance, conflict management and resolution, and defensive behaviors.
[CSU; UC; CSU-GE AREA D7; IGETC, AREA 4]

SPE18. Voice and Diction (3)
Lec 3 Hrs
Semesters Offered: Variable
Introductory course studying speech production designed to improve vocal quality and accurate diction. Emphasis on specific areas of speech production such as proper breathing, vocal production, rate, vocal flexibility, energy, volume, tone, articulation and foreign accents. This is a transfer course for Theatre Arts and Speech/Communication students. This course is not open to students who have completed THA 18 with a grade of “C” or better.
[CSU; UC]

SPE35. Intercultural Communication (3)
Lec 3 Hrs
Semesters Offered: Variable
Study of intercultural communication among people in the United States such as Mexican-American, Hispanic, Native American, Asian American, and African American and world cultures such as India, Japan, Europe, Africa, North Central and South America. Analysis of the influence of cultural patterns, language, values, norms, beliefs, and roles on world views and behavior. Special emphasis in prejudice, ethnocentrism, nationalism, and racism in intercultural communication. Includes development of intercultural communication competence. Not open to students who have completed Counseling 35. This course fulfills the Ethnic Groups in the U.S. graduation requirement.
[CSU; UC; CSU-GE, AREA D7; IGETC AREA 4]

SPE45. Special Projects (1-3)
Pass/No Pass Option
Semesters Offered: Variable
Designed for speech students who are interested in investigating topics beyond the scope of a regular speech courses. Students will gain hands-on or research experience in advanced speech topics involving research or practical applications involving interpersonal, small group, public communication or Mass Media. This course may be taken three times with different or advanced content for a maximum of nine units.
[CSU]

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THA1. Introduction to Theatre (3)  
_Lec 3 Hrs_  
_Semesters Offered: Variable_  
Provides the student with a basic definition of theatre, its historical foundations, genres, and current production practices leading to an appreciation of theatre. Introduction to Theatre is required of all theatre arts majors.  
[CSU; UC; CSU-GE, AREA C1, IGETC, AREA 3]  

THA2A. Art of Interpretative Speech (3)  
_Lec 3 Hrs_  
_Semesters Offered: Variable_  
The study of literature through the medium of oral performance. Prose, poetry, and dramatic literature are used as sources of material. Speech 2A is identical to Theatre Arts 2A.  

THA2B. Voice and Diction (3)  
_Lec 1 Hr; Lab 3 Hrs_  
_Semesters Offered: Variable_  
Introduction course studying speech production designed to improve vocal quality and accurate diction. Emphasis on specific areas of speech production such as proper breathing, vocal production, rate, vocal flexibility, energy, volume, tone, articulation and foreign accents. This is a transfer course for Theatre Arts and Speech/Communication students. This course is not open to students who have completed SPE 18 with a grade of “C” or better.  
[CSU; UC]  

THA3. History of the Theatre (3)  
_Lec 3 Hrs_  
_Semesters Offered: Variable_  
A comprehensive history of the Theater from its prehistoric origins and the Greeks through the American Theatre of the twentieth century.  
[CSU; UC; CSU-GE, AREA C1, IGETC, AREA 3]  

THA4. Characterization (3)  
_Lec 2 Hrs; Lab 3 Hrs_  
_Semesters Offered: Variable_  
The major styles of acting are discussed and practiced, emphasizing the tools necessary for bringing a character on stage. The acting process will be explored on a deeper level focusing on more complex characterization and character analysis. Theatrical styles and period acting will be explored with emphasis on monologues and scenes. Students will be performing a final scene and will need to acquire the entire script from which that scene is taken.  
[CSU; UC]  

THA5. Special Projects (5-3)  
_Semesters Offered: Variable_  
This course facilitates the study of theatre forms: genres, materials styles, periods, etc. that are not typically a major part of a specific course.  
[CSU]  

THA6. Theatre Outreach Projects: Concept and Development (.5-4)  
_Pass/No Pass Only_  
_Semesters Offered: Variable_  
Focuses on the rehearsal and continued development of specific on-campus events and festivals; productions for youth (touring, on-campus, or in classroom residencies), senior adults, or other underserved groups; presentations for charity events and social organizations; or programs that will assist other organizations with staging theatre events and festivals.  
[CSU]  

THA7. Singing for Actors (2)  
_Lec 1 Hr; Lab 3 Hrs_  
_Semesters Offered: Variable_  
Principles of breathing, diction, tonal production, and musically for the Actor. Emphasis will be placed on the use of literature from the American Musical Theatre.  
[CSU; UC]  

THA8. Voice and Diction (3)  
_Lec 3 Hrs_  
_Semesters Offered: Variable_  
Introduction course studying speech production designed to improve vocal quality and accurate diction. Emphasis on specific areas of speech production such as proper breathing, vocal production, rate, vocal flexibility, energy, volume, tone, articulation and foreign accents. This is a transfer course for Theatre Arts and Speech/Communication students. This course is not open to students who have completed SPE 18 with a grade of “C” or better.  
[CSU; UC]  

THA9. Theatre Outreach Projects: Implementation and Practice (.5-4)  
_Pass/No Pass Only_  
_Semesters Offered: Variable_  
Focuses on the production and evaluation of specific on-campus events and festivals; performances for youth (touring, on-campus, or in classroom residencies), senior adults, or other underserved groups; presentations for charity events and social organizations; or programs that will assist other organizations with staging theatre events and festivals.  
[CSU]  

THA10. Beginning Acting (3)  
_Lec 2 Hrs; Lab 3 Hrs_  
_Semesters Offered: Variable_  
Designed to teach the basic skills, concepts, and methods of modern, realistic, acting techniques and its principles. Physical, emotional and mental phases of acting are studied and practiced in scripted dramatic scenes, improvisations, and theatre exercises. Emphasis is given in the areas of physical movement, diction, observation, concentration, imagination, and “intentional acting.” Students will be performing a final scene and will need to acquire the entire script from which that scene is taken.  
[CSU; UC]  

THA11. Intermediate Acting (3)  
_Lec 2 Hrs; Lab 3 Hrs_  
_Semesters Offered: Variable_  
Designed to build on the basics of beginning actor training. Stanislavski-based and other modern acting systems are explored through exercises, written analysis, and scene/monologue study with an emphasis on creating a truthful characterization, living moment to moment in the imaginary circumstances of the character. The major styles of acting are discussed and explored as well as artistic and creative development, theatre discipline and ethics, and professional standards. Students will be performing a final scene and will need to acquire the entire script form which that scene is taken.  
[CSU; UC]  

THA12. Special Projects (5-3)  
_Semesters Offered: Variable_  
This course facilitates the study of theatre forms: genres, materials styles, periods, etc. that are not typically a major part of a specific course.  
[CSU]  

THA17. Art of Interpretative Speech (3)  
_Lec 3 Hrs_  
_Semesters Offered: Variable_  
The study of literature through the medium of oral performance. Prose, poetry, and dramatic literature are used as sources of material. Speech 2A is identical to Theatre Arts 2A.  

THA14. Characterization (3)  
_Lec 2 Hrs; Lab 3 Hrs_  
_Semesters Offered: Variable_  
The major styles of acting are discussed and practiced, emphasizing the tools necessary for bringing a character on stage. The acting process will be explored on a deeper level focusing on more complex characterization and character analysis. Theatrical styles and period acting will be explored with emphasis on monologues and scenes. Students will be performing a final scene and will need to acquire the entire script from which that scene is taken.  
[CSU; UC]  

THA18. Voice and Diction (3)  
_Lec 3 Hrs_  
_Semesters Offered: Variable_  
Introduction course studying speech production designed to improve vocal quality and accurate diction. Emphasis on specific areas of speech production such as proper breathing, vocal production, rate, vocal flexibility, energy, volume, tone, articulation and foreign accents. This is a transfer course for Theatre Arts and Speech/Communication students. This course is not open to students who have completed SPE 18 with a grade of “C” or better.  
[CSU; UC]  

THA45. Special Projects (5-3)  
_Semesters Offered: Variable_  
This course facilitates the study of theatre forms: genres, materials styles, periods, etc. that are not typically a major part of a specific course.  
[CSU]  

THA90A. Theatre Outreach Projects: Concept and Development (.5-4)  
_Pass/No Pass Only_  
_Semesters Offered: Variable_  
Focuses on the initial stages of development of specific on-campus events and festivals; productions for youth (touring, on-campus, or in classroom residencies), senior adults, or other underserved groups; presentations for charity events and social organizations; or programs that will assist other organizations with staging theatre events and festivals.  
[CSU]  

THA90B. Theatre Outreach Projects: Implementation and Practice (.5-4)  
_Pass/No Pass Only_  
_Semesters Offered: Variable_  
Focuses on the rehearsal and continued development of specific on-campus events and festivals; productions for youth (touring, on-campus, or in classroom residencies), senior adults, or other underserved groups; presentations for charity events and social organizations; or programs that will assist other organizations with staging theatre events and festivals.  
[CSU]  

THA90C. Theatre Outreach Projects: Execution and Assessment (.5-4)  
_Pass/No Pass Only_  
_Semesters Offered: Variable_  
Focuses on the production and evaluation of specific on-campus events and festivals; performances for youth (touring, on-campus, or in classroom residencies), senior adults, or other underserved groups; presentations for charity events and social organizations; or programs that will assist other organizations with staging theatre events and festivals.  
[CSU]  

THA91A. New Works Project: Concept and Development (.5-4)  
_Pass/No Pass Only_  
_Semesters Offered: Variable_  
Focuses on adaptation of original ideas and/or existing novels, poetry, journals, memoirs, and other non-dramatic texts into theatrical form, and will culminate in a preliminary timeline for its development.  
[CSU; UC]  

THA91B. New Works Project: Implementation and Practice (.5-4)  
_Pass/No Pass Only_  
_Semesters Offered: Variable_  
This course will guide a previously identified concept/text for a new theatrical work through additional stages of drafting and revisions. Development may include adaptation of non-dramatic text into dramatic form, drafting of a play from an original idea; putting scenes from a dramatic text into workshops to determine its potential as a musical; improvisation to suggest new treatments, etc. Hartnell College Library/LRC.
THA92A. Solo Artist Project: Concept and Development (.5-4)  
**Pass/No Pass Only**  
Semesters Offered: Variable  
Focuses on the selection of material or the development of an original project for the Solo Artist, which includes the actor, musician or dancer and their collaborators (director, designer, choreographer, composer, and writer). Students may enroll in THA-92A a maximum of four times.  
[CSU; UC]  

THA92B. Solo Artist Project: Implementation and Practice (.5-4)  
**Pass/No Pass Only**  
Semesters Offered: Variable  
Focuses on the development of an approved script, or of an original project concept/idea designed by the solo artist through research, rehearsal, and progress previews.  
[CSU; UC]  

THA92C. Solo Artist Project: Execution and Assessment (.5-4)  
**Pass/No Pass Only**  
Semesters Offered: Variable  
Focuses on final rehearsal and presentation of an approved script or of an original work for the solo artist (actor, musician or dancer).  
[CSU; UC]  

THA100A. Introduction to Ensemble  
Play Production: Concept/Development (.5-4)  
**Pass/No Pass Only**  
Semesters Offered: Variable  
Introduction to the production of the ensemble play with an emphasis on the concept and development of script, design elements, rehearsal and performance techniques, and the ensemble itself.  

THA100B. Introduction to Ensemble  
Play Prod. - Implementation/Practice (.5-4)  
**Pass/No Pass Only**  
Semesters Offered: Variable  
An introduction to the production of the ensemble play with an emphasis on the implementation and practice of rehearsal and production techniques. This course may be repeated three times.  

THA100C. Introduction to Ensemble  
Play Prod. Execution/Assessment (.5-4)  
**Pass/No Pass Only**  
Semesters Offered: Variable  
An introduction to the production of the modern play with an emphasis on the execution of a fully realized production.  

THA101. Ensemble Theatre: Modern Plays in Rehearsal (.5-4)  
**Pass/No Pass Only**  
Semesters Offered: Variable  
The rehearsal and development of the modern ensemble play, in a performance setting with an emphasis on performance and stage management. Students may enroll in THA-101 a maximum of four times.  

THA102. Ensemble Theatre: Modern Plays In Performance (.5-3)  
**Pass/No Pass Only**  
Semesters Offered: Variable  
Play presentation techniques for the performer, stage manager and theatre technician, with an emphasis on the literature of the ensemble-oriented modern play. Students may enroll in THA-102 a maximum of four times.  

THA110A. Introduction to Modern Play  
Production: Concept and Development (.5-4)  
**Pass/No Pass Only**  
Semesters Offered: Variable  
An introduction to the production of the modern play with an emphasis on the concept and development of script, design elements, and performance techniques.  

THA110B. Introduction to Modern Play  
Production: Implementation and Practice (.5-4)  
**Pass/No Pass Only**  
Semesters Offered: Variable  
An introduction to the production of the modern play with an emphasis on the implementation and practice of rehearsal and production techniques.  

THA110C. Introduction to Modern Play  
Production: Execution and Assessment (.5-4)  
**Pass/No Pass Only**  
Semesters Offered: Variable  
An introduction to the production of the modern play with an emphasis on the execution of a fully realized production.  

THA120A. Introduction to Musical Theatre  
Theatre Prod.: Concept and Development (.5-4)  
**Pass/No Pass Only**  
Semesters Offered: Variable  
An introduction to the production of the musical play with an emphasis on the concept and development of script, design elements, and performance techniques. Students may enroll in any combination of MUS-120A and THA-120A a maximum of four times.  

THA120B. Introduction to Musical Theatre  
Theatre Production: Execution and Assessment (.5-4)  
**Pass/No Pass Only**  
Semesters Offered: Variable  
An introduction to the production of the musical with an emphasis on the implementation and practice of rehearsal and production techniques. Students may enroll in any combination of Music 120B and Theatre Arts 120B a maximum of four times.  

THA120C. Introduction to Musical Theatre  
Theatre Production: Execution and Assessment (.5-4)  
**Pass/No Pass Only**  
Semesters Offered: Variable  
An introduction to the production of the musical with an emphasis on the execution of a fully realized production. Students may enroll in MUS-120C and THA-120C a maximum of four times.  

THA121. Musical Theatre: Modern  
Musicals Rehearsal (.5-4)  
**Pass/No Pass Only**  
Semesters Offered: Variable  
Extensive practice in the development of the modern musical, with an emphasis on performance and stage management. Students may enroll in any combination of Music 121 and Theatre Arts 121 a maximum of four times.  

THA122. Musical Theatre: Modern  
Musicals In Performance (.5-3)  
**Pass/No Pass Only**  
Semesters Offered: Variable  
Play presentation techniques for the performer, stage manager and theatre technician, with an emphasis on the literature of the modern musical play. Students may enroll in any combination of Music 122 and Theatre Arts 122 a maximum of four times.  

THA123. Musical Theatre: The  
Ensemble Musical in Rehearsal (.5-4)  
**Pass/No Pass Only**  
Semesters Offered: Variable  
The rehearsal and development of the ensemble musical, in a performance setting with an emphasis on performance or stage management. Students may enroll in MUS-123 or THA-123 a maximum of four times.  

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THA124. Musical Theatre: The Ensemble Musical in Performance (.5-3)  
**Pass/No Pass Only**  
**Seminars Offered:** Variable  
Play presentation techniques for the performer, stage manager and theatre technician, with an emphasis on the literature of the ensemble musical play. Students may enroll in any combination of Music 124 and Theatre Arts 124 a maximum of four times.

THA125. Musical Theatre - World Theatre Musicals in Rehearsal (.5-4)  
**Pass/No Pass Only**  
**Seminars Offered:** Variable  
Extensive practice in the development of the world theatre musical, with an emphasis on performance and stage management. Students may enroll in any combination of Music 125 and Theatre Arts 125 a maximum of four times.

THA126. Musical Theatre - World Theatre Musicals in Performance (.5-3)  
**Pass/No Pass Only**  
**Seminars Offered:** Variable  
Presentation techniques for the performer, stage manager and theatre technician, with an emphasis on the literature of the world theatre musical. Students may enroll in any combination of Music 126 and Theatre Arts 126 a maximum of four times.

THA127. Musical Theatre: Revival Musicals in Rehearsal (.5-4)  
**Pass/No Pass Only**  
**Seminars Offered:** Variable  
The rehearsal and development of the revival musical, with an emphasis on performance and stage management. Students may enroll in MUS-127 or THA-127 a maximum of four times.

THA128. Musical Theatre: Revival Musicals in Performance (.5-3)  
**Pass/No Pass Only**  
**Seminars Offered:** Variable  
Play presentation techniques for the performer, stage manager and theatre technician, with an emphasis on the literature of the revival musical play. Students may enroll in MUS-128 or THA-128 a maximum of four times.

THA130A. Introduction to World Theatre Production: Concept and Development (.5-4)  
**Pass/No Pass Only**  
**Seminars Offered:** Variable  
An introduction to the production of the world theatre play with an emphasis on the concept and development of script, design elements, rehearsal and performance techniques. Students may enroll in THA-130A a maximum of four times.

THA130B. Introduction to World Theatre Production: Implementation in Performance (.5-4)  
**Pass/No Pass Only**  
**Seminars Offered:** Variable  
An introduction to the production of the world theatre play with an emphasis on the concept and development of script, design elements, rehearsal and performance techniques. Students may enroll in THA-130A a maximum of four times.

THA130C. Introduction to World Theatre Production: Execution and Assessment (.5-4)  
**Pass/No Pass Only**  
**Seminars Offered:** Variable  
An introduction to the production of the world theatre play with an emphasis on the execution of a fully realized production. Students may enroll in THA-130C a maximum of four times.

THA131. World Theatre: Modern Plays in Rehearsal (.5-4)  
**Pass/No Pass Only**  
**Seminars Offered:** Variable  
The rehearsal and development of the modern world theatre play in a performance setting, with an emphasis on performance and stage management. Students may enroll in THA-131 a maximum of four times.

THA132. World Theatre: Modern Plays in Performance (.5-3)  
**Pass/No Pass Only**  
**Seminars Offered:** Variable  
Play presentation techniques for the performer, stage manager and theatre technician, with an emphasis on the literature of the modern world theatre play. Students may enroll in THA-132 a maximum of four times.

THA133. World Theatre: The Ensemble Play in Rehearsal (.5-4)  
**Pass/No Pass Only**  
**Seminars Offered:** Variable  
The rehearsal and development of the world theatre ensemble play, in a performance setting with an emphasis on performance and stage management. Students may enroll in THA-133 a maximum of four times.

THA134. World Theatre: The Ensemble Play in Performance (.5-3)  
**Pass/No Pass Only**  
**Seminars Offered:** Variable  
Play presentation techniques for the performer, stage manager and theatre technician, with an emphasis on the literature of the ensemble-oriented world theatre play. Students may enroll in THA-134 a maximum of four times.

THA135. World Theatre - Revival Plays in Rehearsal (.5-4)  
**Pass/No Pass Only**  
**Seminars Offered:** Variable  
Extensive practice in the development of the revival of a period world theatre play, with an emphasis on performance and stage management.

THA136. World Theatre - Revival Plays in Performance (.5-3)  
**Pass/No Pass Only**  
**Seminars Offered:** Variable  
Play presentation techniques for the performer, stage manager and theatre technician, with an emphasis on the literature of the world theatre revival play.

THA140A. Introduction to Revival Play Production: Concept/Development (.5-4)  
**Pass/No Pass Only**  
**Seminars Offered:** Variable  
An introduction to the production of the revival play with an emphasis on the concept and development of script, design elements, rehearsal and performance techniques, and the ensemble itself. Students may enroll in THA-140A a maximum of four times.

THA140B. Introduction to Revival Play Production: Implementation/Practice (.5-4)  
**Pass/No Pass Only**  
**Seminars Offered:** Variable  
An introduction to the production of the revival play with an emphasis on the implementation and practice of rehearsal and production techniques. Students may enroll in THA-140B a maximum of four times.

THA140C. Introduction to Revival Play Production: Execution/Assessment (.5-4)  
**Pass/No Pass Only**  
**Seminars Offered:** Variable  
An introduction to the production of the revival play with an emphasis on the execution of a fully realized production. Students may enroll in THA-140C a maximum of four times.

THA141. The Modern Revival Play in Rehearsal (.5-4)  
**Pass/No Pass Only**  
**Seminars Offered:** Variable  
The rehearsal and development of the modern revival of a period play, with an emphasis on performance and stage management.

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THA142. The Modern Revival Play in Performance (.5-3)  
Pass/No Pass Only  
Semesters Offered: Variable  
Play presentation techniques for the performer, stage manager and theatre technician, with an emphasis on the literature of the modern revival play. This course may be repeated three times.

THA143. The Ensemble Revival Play in Rehearsal (.5-4)  
Pass/No Pass Only  
Semesters Offered: Variable  
Extensive practice in the development of an ensemble-oriented revival play with an emphasis on performance and stage management.

THA144. The Ensemble Revival Play in Performance (.5-3)  
Pass/No Pass Only  
Semesters Offered: Variable  
Play presentation techniques for the performer, stage manager and theatre technician, with an emphasis on the literature of the ensemble-oriented revival play.

THA170. Proscenium Stage Scenic Construction (.5-6)  
Pass/No Pass Only  
Semesters Offered: Variable  
Designed to teach the basic skills, concepts, and methods of beginning and intermediate scenic construction execution for the proscenium stage. Covers the theater plant, theater personnel, scene construction, and scene painting. Students will work on a series of projects which will culminate in finished scenery for a play, musical or a series of the two. Since skills and proficiencies are enhanced by supervised repetition and practice, students may enroll in THA-170 a maximum of four times.

THA172. Thrust and Three-Quarter Stage Scenic Const. (.5-6)  
Pass/No Pass Only  
Semesters Offered: Variable  
Designed to teach the basic skills, concepts, and methods of beginning and intermediate scenic construction execution for the thrust and/or three-quarter stage. Covers the theater plant, theater personnel, scene construction, and scene painting. Students will work on a series of projects which will culminate in finished scenery for a play, musical or a series of the two. Since skills and proficiencies are enhanced by supervised repetition and practice, students may enroll in THA-172 a maximum of four times.

THA173. Advanced Scenic Construction Management for the Proscenium Thrust Stage (.5-6)  
Pass/No Pass Only  
Semesters Offered: Variable  
Designed to teach skills, concepts, and methods of advanced scenic construction execution for the proscenium stage and thrust stage. Covers the theater plant, theater personnel, scene construction, and scene painting, estimating material needs, build schedules, the design process and inventory assessment. Students will work on a series of projects which will culminate in finished scenery for a play, musical or a series of the two. Since skill and proficiencies are enhanced by supervised repetition and practice, students may enroll in THA-173 a maximum of four times.

THA174. Proscenium Stage Scenic Painting and Properties Techniques (.5-6)  
Pass/No Pass Only  
Semesters Offered: Variable  
Designed to teach the basic skills, concepts, and methods of beginning and intermediate scenic painting and properties execution for the proscenium stage. The course will cover the theater plant, theater personnel, scenic painting and properties execution, and their applications. Students will work on a series of projects which will culminate in finished scenic painting and properties execution for a play, musical or a series of the two. This course may be repeated three times.

THA176. Thrust and Three-Quarter Stage Scenic Painting and Properties Techniques (.5-6)  
Pass/No Pass Only  
Semesters Offered: Variable  
Designed to teach the basic skills, concepts, and methods of beginning and intermediate scenic painting and properties execution for the thrust/three-quarter stage. The course will cover the theater plant, theater personnel, scenic painting and properties execution, and their applications. Students will work on a series of projects which will culminate in finished scenic painting and properties execution for a play, musical or a series of the two. This course may be repeated three times.

THA177. Advanced Scenic Paint, Props and Crafts Management for the Proscenium and Thrust Stages (.5-6)  
Pass/No Pass Only  
Semesters Offered: Variable  
Designed to teach the basic skills, concepts, and methods of beginning and intermediate scenic painting and properties execution for the thrust/three quarter stage. Covers the theater plant, theater personnel, scenic painting and properties execution, and their applications. Students will work on a series of projects which will culminate in finished scenic painting and properties execution for a play, musical or a series of the two. This course may be repeated three times.

THA180. Proscenium Stage Costuming Techniques (.5-6)  
Pass/No Pass Only  
Semesters Offered: Variable  
This course is designed to teach the basic skills, concepts, and methods of beginning and intermediate costume construction and execution for the proscenium stage. The course will cover the theater plant, theater personnel, costume construction, and its applications. Students will work on a series of projects which will culminate in finished costume design for a play, musical or a series of the two. Students may enroll in THA-180 a maximum of four times.

THA182. Thrust and Three-Quarter Stage Costuming Techniques (.5-6)  
Pass/No Pass Only  
Semesters Offered: Variable  
This course is designed to teach the basic skills, concepts, and methods of beginning and intermediate costume construction and execution for the thrust and/or three-quarter stage. The course will cover the theater plant, theater personnel, costume construction and wardrobe applications. Students will work on a series of projects which will culminate in finished costumes for a play, musical or a series of the two. Students may enroll in THA-182 a maximum of four times.

THA183. Advanced Costuming Techniques Management for the Proscenium and Thrust Stages (.5-6)  
Pass/No Pass Only  
Semesters Offered: Variable  
Designed to teach skills, concepts, and methods of advanced costume construction for the proscenium stage and thrust stage. The course will cover the theater plant, theater personnel, costume construction, estimating material needs, build schedules, the design process and inventory assessment. Students will work on a series of projects which will culminate in a completed costume design for a play, musical or a series of the two. Students may enroll in THA-183 a maximum of four times.

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THA184. Proscenium Stage – Makeup/Hair Tech. Beg/Int. (.5-.6)
Pass/No Pass Only
Semesters Offered: Variable
Designed to teach the basic techniques for the effective application of theatrical makeup and hair at the beginning and intermediate level for the proscenium stage. The student will gain a practical, working knowledge of the principles of highlighting, shadowing, and contouring the human face with makeup in a laboratory environment. Explorations into the basic techniques involved in working with crepe hair, and various three-dimensional processes shall also be undertaken as the character and/or design requires. The relationships between the makeup designer, costume designer, wardrobe mistress, and makeup/dressing crew member will be emphasized. Students will work on a series of projects which will culminate in finished makeup design for a play, musical or a series of the two. Students may enroll in THA-184 a maximum of four times.

THA186. Thrust & 3/4 Stage – Makeup/Hair Techniques
Beginning/Intermediate (.5-6)
Pass/No Pass Only
Semesters Offered: Variable
Designed to teach the basic techniques for the effective application of theatrical makeup and hair at the beginning and intermediate level for the thrust and three-quarter stage. The student will gain a practical, working knowledge of the principles of highlighting, shadowing, and contouring the human face with makeup in a laboratory environment. Explorations into the basic techniques involved in working with crepe hair, and various three-dimensional processes shall also be undertaken as the character and/or design requires. Dressing techniques for the thrust and three-quarter stage that call for careful attention to acute details will also be covered. Students will work on a series of projects which will culminate in finished makeup design for a play, musical or a series of the two. Students may enroll in THA-186 a maximum of four times.

THA187. Advanced Makeup, Hair, Wig, and Wardrobe Techniques (.5-.6)
Pass/No Pass Only
Semesters Offered: Variable
Designed to teach skills, concepts, and methods of advanced makeup, hair and wardrobe applications for the proscenium and thrust stage. The course will cover the theater plant, theater personnel, makeup design and application, estimating material needs, production schedules, and wardrobe inventory assessment and organization. Students will work on a series of projects which will culminate in a completed makeup design or wardrobe management for a play, musical or a series of the two at the advanced level. Students may enroll in THA-187 a maximum of four times.

THA190. Proscenium Stage Lighting, Sound, and Rigging Techniques (.5-6)
Pass/No Pass Only
Semesters Offered: Variable
Designed to teach the basic skills, concepts, and methods of beginning and intermediate lighting, sound and rigging execution for the proscenium stage. Students will work on a series of projects which will culminate in finished lighting, sound and/or rigging requirements for a play, musical or series of the two. The relationships between the lighting and sound designers, master electrician, and lighting and sound crew and technical director will be emphasized. This course may be repeated three times.

THA192. Thrust and Three-Quarter Stage Light. Sound, and Rigging Techniques (.5-6)
Pass/No Pass Only
Semesters Offered: Variable
Designed to teach the basic skills, concepts, and methods of beginning and intermediate lighting, sound and rigging execution for the thrust/three quarter stage. Students will work on a series of projects which will culminate in finished lighting and sound and rigging requirements for a play, musical or series of the two. The relationships between the lighting and sound designers, master electrician, and lighting and sound crew and technical director will be emphasized. This course may be repeated three times.

THA193. Advanced Lighting, Sound, and Rigging Management for Proscenium and Thrust Stages
(.5-6)
Pass/No Pass Only
Semesters Offered: Variable
Designed to teach the skills, concepts, and methods of lighting, sound, and rigging management techniques for the advanced electric student. Advanced students will work on a series of projects which will culminate in finished lighting and sound and rigging requirements for a play, musical or series of the two. The relationships between the lighting and sound designers, master electrician, and lighting and sound crew and technical director will be emphasized. Skills and proficiencies are enhanced by supervised repetition and practice, this course may be repeated three times.
WLD52. Sheet Metal Fabrication (2)
Pass/No Pass Option
Lec 1 Hr; Lab 3 Hrs
Semesters Offered: Variable
Introduction and basic training in sheet metal forming, fastening and pattern making skills. Students learn to develop patterns and fabricate a variety of sheet metal projects. Skills training in the safe and proper use of sheet metal related equipment. [CSU]

WLD53. Welding Fabrication (2)
Pass/No Pass Option
Prerequisite: WLD150 or WLD 151 with a grade of "C" or better.
Lec 1 Hr; Lab 3 Hrs
Semesters Offered: Variable
Practical experience in metal fabrication, production welding and maintenance welding techniques. Study and practice in measurement, blue print reading, layout techniques, material selection, weight and cost estimation. Students are assigned various fabrication projects on industrial and agricultural equipment that require the use of the oxy-fuel, plasma, GMAW and GTA welding processes. [CSU]

WLD54. Advanced Welding (2)
Pass/No Pass Option
Prerequisite: WLD-150 or WLD-151 with a grade of "C" or better.
Lec 1 Hr; Lab 3 Hrs
Semesters Offered: Variable
Advanced study of theory and practice of SMAW, GTAW, GMAW, FCAW, and various cutting practices. A course designed to prepare students for qualification in welding methods used in the agriculture, construction, pipeline and pressure vessel welding industries. Emphasis on destructive and non-destructive testing. [CSU]

WLD55. Ornamental Ironwork (2)
Pass/No Pass Option
Advisory: Completion of WLD 150
Lec 1 Hr; Lab 3 Hrs
Semesters Offered: Variable
Introductory level study to the practical application of traditional and modern metal working techniques. Focus is on the history, development and present day practices used in the fabrication of architectural ornamental ironwork. Emphasis is on safety and process fundamentals including mig welding, oxy-fuel and plasma cutting, metal forming and traditional hot forging practices.

WLD56. Toolmaking (2)
Pass/No Pass Option
Prerequisite: WLD-150 with a grade of "C" or better.
Lec 1 Hr; Lab 3 Hrs
Semesters Offered: Variable
An introductory level metalworking course that focuses on the making of basic hand tools for the trades. Introduction to basic steel metallurgy, hot forging, heat treating and grinding operations performed on tooling. Emphasis is on safety in the use of metalworking equipment and understanding of process fundamentals. Not open to students who have successfully completed WLD 56.

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Administration and Faculty

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Development Officer.................................................................................................................................................. Jaqueline Cruz-Ortega

Facilities Planning Manager ......................................................................................................................................... Vacant

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Dean of Physical Education and Athletics .................................................................................................................. Dyan Miller

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Director, Enrollment Services ...................................................................................................................................... Mary Dominguez

Director, Financial Aid .............................................................................................................................................. Mary Helen Dorado

Grant Project Director, Student Services Support Grant ......................................................................................... Manuel Bersamin

Grant Project Director, East Salinas GEAR Up Grant ............................................................................................. Augustine Nevarez

Grant Project Director, High School Equivalency Program ....................................................................................... Vacant

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Director, Business Assistance Center ............................................................................................................................ Vacant

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Director, The Western Stage ....................................................................................................................................... Jon Selover

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Associate Vice-President for Support Operations ....................................................................................................... Barbara Yesnososky

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Grants Manager .......................................................................................................................................................... Sharon Alheit

Director, Human Resources/Equal Employment Opportunity ............................................................................... Vacant

Manager, Food Services ............................................................................................................................................ Mike Cunnane

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BA, MA, CSU Long Beach

SPROLES, KATHY
Reading
BA, David Lipscomb College
M. Ed., Middle Tennessee State University

STAVE, MELISSA
Adaptive Physical Education Specialist
BA, MA, CSU Humboldt

STORM, LISA
Administration of Justice
BA, UC Davis
JD, Hastings College of Law

SVENDSEN, CHRISTINE
Computer Information Systems
AS Certificate, Hartnell College
BA, CSU Monterey Bay
MS, CSU Hayward

SWORD, JOHN
Mathematics
BS, Chicago State
MA, DePaul University

SZAMOS, ARON
Counselor
BA, CSU Monterey Bay
MS, San Francisco State University

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BS, CSU Sacramento
MA, St. Mary’s College of California

TEUTSCH, MARIA
English, Math
BA, University of North Carolina Wilmington
MA, Appalachian State University

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BS, Cal Poly Pomona
MBA, Colorado State

TRIANO, STEVEN
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BS, CSU Chico
PhD, UC Davis

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BA, MA, Stanford University

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BS, United States Sports Academy
MS, Northern Arizona University

WADDDY, RONALD
English
BA, CSU Dominguez Hills
MA, CSU Long Beach

WATT, ANDREW
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BA, CSU Long Beach
MA, St. Mary’s College of California

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BA, UC Berkeley
MA, UCLA

WELCH, JOE
Computer Information Science
BS, Naval Academy
MS, Naval Postgraduate School
MS, Nova Southeastern University

WHITMORE, JANEEN
Nursing
BSN, Loyola University
MSN, Louisiana State University Health Sciences Center, New Orleans

WIESE, PAMELA
Computer Information Science
BA, Willamette University
MA, Ohio State University

WRIGHT, ANN
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BA, Northwestern University
PhD, Stanford University

YEE, LAWRENCE
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BS, UC Berkeley
MS, San Francisco State University
MS, UCLA

YELLAND, HETTY LANIER
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BA, UC Davis
MA, University of the Pacific
PhD, University of Tulsa

YOUNG-BREULEUX, MARY
Nursing
BSN, Temple University
MSN, Yale University

ZARATE, ANDREA
Early Childhood Education
BS, College of St. Theresa
M. Ed., College of Notre Dame
Map Legend

- AMPHTH: Amphitheater
- ANX: Annex
- CDC: Child Development Center
- CAB: Classroom/Administration Building
- EOPS: Extended Opportunity Program & Services
- HCC: Hartnell College Center (Cafeteria/Dining Room)
- HR: Human Resources
- LRC: Learning Resource Center
- Maint: Maintenance/Operations/Receiving
- MER: T.R. Merrill Hall
- PAF: Performing Arts Facility
- PE: Physical Education
- PLNTRM: Planetarium
- TECH: Technology
- Tennis: Tennis Courts (TNCT)
- UNIT: Units A–B–C–D–E–F–G
- VAF: Visual Arts Facility (Gallery)

Bus Stops

Corners near the college
West Alisal Street at Homestead Avenue
Amherst Street at West Alisal Street
College Drive at West Alisal Street

Corners near Alisal Campus
East Alisal Street at Williams Road

Some Bus Passes sold at the Cashier's office. Call MST at 831-424-7695 for more information on bus schedules.
Getting to HARTNELL COLLEGE Campuses

Hartnell College
Main Campus
411 Central Avenue
Salinas, California
755-6700

Alisal Campus
1752 East Alisal Street
Salinas, California
759-6093

Natividad Medical Center
Health Professions Center
1441 Constitution Boulevard
Building 400, 3rd Floor
Salinas, California
770-6146
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