HARTNELL COMMUNITY COLLEGE

411 Central Avenue
Salinas, CA 93901
(831) 755-6700
www.hartnell.edu

2008 – 2009 COLLEGE CATALOG

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.
HARTNELL COMMUNITY COLLEGE DISTRICT
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ACCURACY STATEMENT
The Hartnell Community College District has made every reasonable effort to insure that information in this Catalogue is accurate. Courses and programs that are offered, along with other matter contained herein, are subject to change without notice by Hartnell College administration for reasons related to student enrollment, level of financial support, or for any other reason, at the discretion of the District and the College. The District and the College further reserve the right to add to, amend, or repeal any of their rules, regulations, policies, and procedures, consistent with application laws.

PREREQUISITES
Prerequisites are currently under review. Check the on-line schedule for prerequisites.

OFFICE OF INSTRUCTION
The College Catalogue is produced annually by the Office of Instruction.

Professional photos including cover photo by Randy Tunnell.
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.

STATEMENT OF OBJECTIVES
• Prepare students for admission with advanced standing to four-year colleges and universities.
• Prepare students for employment with a background of both technical and general education.
• Increase opportunities to develop and improve abilities to read, to listen with understanding and to communicate effectively.
• Provide opportunities to promote the critical thinking process by the student.
• Provide counseling services to help individuals discover their interests, and abilities and to determine an appropriate educational program.
• Assist persons seeking career change or advancement, or re-entry into a career field.
• Provide opportunities for students whose prior academic achievements are latent in relation to their stated educational and vocational goals.
• Provide educational services for those either preparing for a career or seeking a degree.
• Promote opportunities to develop an understanding of an appreciation for our rich heritage of creativity in the arts, humanities, and sciences.

• Extend services and programs throughout the District’s service area in response to community needs.
• Provide opportunities to increase students’ self-understanding, self direction and social, physical, and intellectual development.

STATEMENT OF FUNCTION
1. Transfer and General Education
   A. Offer those courses necessary for students to complete all general education and lower-division major requirements prior to the time of actual transfer.
   B. Guarantee course transferability through appropriate articulation agreements with the member institutions of the CSU and UC systems.
   C. Ensure equivalency of lower-division instruction with member institutions of the CSU and UC systems by engaging in curriculum development and by maintaining adequate communication with other institutions.

2. Occupational Education
   A. Diversify the vocational-technical curriculum by offering both Associate Degree and short-term certificate programs that reflect the needs of the students and the community.
   B. Accommodate technological change by cooperatively designing in-service training programs to maintain and update skills.
   C. Offer retraining programs to meet the needs of business, industry, government and non-profit agencies.

3. Developmental Education
   A. Ensure equal opportunity of instruction on and services for disabled, disadvantaged, minority, and all non-traditional students
   B. Provide for the needs of students at whatever level they enter the college
   C. Provide developmental courses for students lacking basic skills necessary to complete general education, occupational education, or transfer education programs

4. Workforce and Community Development
   A. Provide a variety of courses that respond to the cultural, vocational, avocational, and personal development needs of the District residents
   B. Provide courses and services convenient to the public in a variety of geographic locations

C. Provide a variety of community services, including facility use, and cultural and recreational activities, for the public
D. Respond to requests for training, workshops and other services; these activities will be on a self supporting basis

5. Student and Career Development
   A. Provide student support services including counseling, financial aid, testing, athletics, student activities, and recreational opportunities.
   B. Offer career services which assist individuals in exploring their career interests in developing educational programs best suited to their needs, interests, and potential for personal growth and obtaining employment within their fields of study.
   C. Demonstrate consistent interest and concern for the well-being of students in all areas of the college.
   D. Provide selected services for students who have physical and psychological handicaps.
   E. Promote growth, acceptance, and practice of life-long education.

ACADEMIC FREEDOM
Academic employees must be free to teach and the students free to learn. Both must have access to the full range of ideas, materials and options. It is the responsibility of academic employees to encourage students to study varying points of view and to respect the students’ right to form, hold, and express judgments, opinions, and beliefs, clearly identifying them as such.

The responsibility of protecting academic freedom rests with the Board of Trustees, administration, educational supervisors, and academic employees. Academic employees have a primary responsibility to develop the curriculum and select instructional materials and methods of presentation appropriate to meet the goals of that curriculum. Academic employees, education supervisors, and administrators may recommend policies for Board consideration when there are criticisms of staff, methods, or materials. Academic employees, educational supervisors and administrators must develop procedures to implement those Board-adopted policies related to academic freedom.

When academic employees are performing their assigned responsibilities, they shall be free to express personal opinions and pursue scholarly, literary, and/or artistic endeavors.
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 procedure 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 Vice President of Student Services. 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, incapacitado, estado civil, ascendencia, origen nacional o estado veterano.

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

Las pólizas de colegio acerca de discriminación, acoso y represalias 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, request 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 statutes.

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, 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.

OPEN ENROLLMENT

It is the policy of 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.

DISTRIBUTION OF LITERATURE TO AND/OR SOLICITING PETITION SIGNATURES FROM STUDENTS ON DISTRICT PROPERTY

Pursuant to the provisions of California Educational Code, Sections 82530 and 82531, individuals/organizations wishing to distribute literature to and/or solicit petition signatures from students of the District, must file a copy of the petitions or materials to be distributed with the Student Activities Office. The application form must include the distributor’s name, address, and social security number.

The VPSS or designated representative will specify the time, place, and manner in which literature is distributed or petition signatures solicited. The distribution period allowed is two days. No materials shall be distributed in, around, or outside any classroom, nor in the halls of any District building.

Distributing literature or soliciting petition signatures at any place or time other than that designated, or in any manner other than that specified by the VPSS or designee is strictly prohibited.

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. In short, 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.

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

Summer Session
Hartnell offers a condensed but comprehensive Summer Session. All classes offered are the same as those taught during the regular academic year. The predominant rationale behind scheduling for summer is to assure students an ongoing, uninterrupted pursuit of educational objectives.
HARTNELL COLLEGE FOUNDATION

The Hartnell College Foundation is a nonprofit corporation organized by community spirited citizens to support and benefit the Hartnell Community College District. The Foundation Board of Directors is made up of 20 volunteers from business, industry, the professions and community service. The Foundation Executive Board, including the officers and committee chairs, and the Board of Directors meet eight times a year.

The Foundation's purpose is to raise funds to support and benefit the Hartnell Community College District. The Foundation Board of Directors has elected to raise monies for athletics, visual and performing arts, scholarships, a community lecture series, and a variety of other projects. Because it is a non-profit corporation, the Foundation can accept contributions and provide tax deductible benefits to its donors.

The Foundation was incorporated in December 1979 and the first meeting of the Board of Directors was held in October 1981. During the early years, the Foundation established several major fund raising events to support the arts and scholarships. The annual Studio Party and Art Auction and the Music Department Extravaganza provide much needed revenue for the Hartnell Gallery and the performing arts.

In 1985, Mr. and Mrs. Villeroy Gleason bequeathed their residence in King City to the Foundation. The Gleason homes' was remodeled with classrooms and office space. The Gleason Center introduced the College's educational presence in South County.

In memory of Phyllis and Roy Gleason, the Gleason Faculty Award and the Gleason Staff Award were established to recognize Hartnell College instructors and classified staff. The Gleason Faculty Award annually recognizes one outstanding Hartnell College teacher who receives a $2,000 cash award. The Gleason Staff Award annually recognizes an outstanding staff member with a $1,000 cash award.

In recent years, the Foundation scholarship endowment has been bolstered by numerous bequests including Eugene and Erica Harden, Dorcas Davenport Brown, California Rodeo Fiesta Day, Henry J. Willis, Betty Hathaway, Terezina A. Hackney, and Elmer and Dorothy Eade. Numerous community organizations, businesses, and individuals support the College Scholarship Program on an annual basis.

Contributions to Hartnell College and Hartnell College Foundation take many forms--gifts of cash, gifts in kind, stock or securities, appreciated art, annuities, trusts, life income trusts, gifts in memorial, wills and bequests. The Foundation Executive Director is always available to assist donors in establishing scholarships and in making other contributions. Legal counsel is provided to those wishing to make planned gifts. Please write or call:

The Hartnell College Foundation
156 Homestead Avenue
Salinas, California 93901
(831) 755-6810

THE CAMPUS

The Hartnell College main campus is located a few blocks from downtown Salinas. The main campus at Homestead Avenue and West Alisal Street consists of many academic facilities, most of which were built within the past twenty years. The College facilities consist of: the College Center; College Annex; Child Development Center; Animal Health Technology Building; Merrill Hall (Science); Classroom, Administration, and Counseling 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 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.
INSTRUCTIONAL FACILITIES

Computing Facilities
Hartnell College Computer Facilities consist of the following:

Academic Computer Systems
General Purpose Classrooms:
C219 - 25 3.0 Ghz Pentium 4, Windows XP
C217 - 31 1.7 Ghz Pentium 4, Windows XP
C213 - 21 1.7 Ghz Pentium 4, Windows XP
C215 - 24 1.7 Ghz Pentium 4, Windows XP
C359 - 30 3.0 Ghz Pentium 4, Windows XP
VAF (216) – 28 G5 Macintosh computers

Computer Lab - 18 3.0 Ghz Pentium 4, Windows XP
Assessment Lab 14- 1.7 Ghz Pentium 4, Windows XP

All classrooms are networked with access to the Internet including WiFi Access. The classrooms are used to teach word processing, spreadsheets, databases, operating systems, languages, MS-DOS Window applications, communications and multimedia applications.

CAD - Classroom/lab
30 - 2.4Ghz Pentium IV, Windows XP

Learning Disability Lab
10 - 1.7Ghz Pentium 4, Windows XP

Physics computer classroom/lab
7-1.7Ghz Pentium 4, Windows XP

Merrill Hall
M8 - 7-800mhz Pentium III, Windows XP
M26 - 6 -1.7Ghz Pentium 4, Windows XP
M24 - 6 -1.7Ghz Pentium 4, Windows XP

Learning Skills Center – with three classrooms/labs of 133mhz computers used for teaching.
Mathematics - 14-1.7Ghz Pentium 4, Windows XP
Reading and Writing - 31-1.7Ghz Pentium 4, Windows XP

Tutorial - 8-1.7Ghz Pentium 4, Windows XP

Library Systems - 212 3.0 Ghz Pentium 4, Windows XP
Laptops, Windows XP

Student Digitizing Room
1- G5 Macintosh

FRC – 11 3.0 Ghz Pentium 4, Windows XP
1 G5 Macintosh

Faculty Digitizing Room
1 -G5 Macintosh

On-line library system is on Endeavor’s Voyager software. Microcomputers used by instructors to teach courses in numerous disciplines.

Administrative Computer Systems
Sun E-450 computer, with over 300 workstations run Datatel administrative software. The Datatel system provides for online registration and grades. Online application is also available. Both services can be accessed through the College’s web site at http://www.hartnell.edu/.

Standalone microcomputers used extensively in campus offices for word processing and numerous applications programs.

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 session vary and will be posted at the library’s entrance and on the library’s web site (http://www.hartnell.edu/library/).

The new Library and Learning Resource Center opened in June 2006. The library is located at the corner of Homestead and Central Avenues adjacent the new 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 resources are available to non-students.

Reference librarians are available during open hours to answer questions, guide students in selection of research tools and suggest 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, and other software. Laptops are available for in building checkout, and wireless access is available throughout the facility. There are copy machines, network printers, and a microform scanner available in the library.

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, Audio Visual Services, Computer Equipment Services, and Media Services are all located in the Library and Learning Resource Center. Visitors to the building are greeted at the entrance by a large plasma screen. Computer and Media Services offer the college community a vast array of multimedia options including the capability of distributed media viewing. The new library includes a variety of learning environments – group study rooms for students, including “smart” study rooms, and a designated silent study room. Both floors in the library offer self-check stations, and express online catalogs are located conveniently at the library entrance and near the book stacks.

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 continuing to build smart classrooms, AV equipment continues to be delivered to classes at faculty’s request to classrooms. Computers with presentation equipment, plasma screens, laptop 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 volumes of the O.P. Sillman Scientific Library. Access to Special Collections is by appointment.
OFF-CAMPUS INSTRUCTION
Each semester Hartnell conducts off-campus classes in King City, Soledad, Greenfield, and at Fort Hunter Liggett. 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.

Each semester, Hartnell College provides off-campus instruction at the King City Education Center. The program in King City includes 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 will normally 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
Students have various schedule needs and Hartnell College schedules may not be suitable; hence, self-paced classes are also offered. These courses provide the flexibility of enrolling and completing the class work at the schedule that is convenient to the student.

Workforce and Community Development Center
The Workforce and Community Development Center offers not-for-credit fee supported courses that are not provided by Hartnell's state supported curriculum. The Center provides vocational courses, classes for the business and professional community, recreational courses, personal development courses, and community and cultural events. The Center also coordinates community use of College facilities. For more information call (831) 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 understand that parenting another’s child is more than just caring. Whether you are taking on the responsibility of caring for a relative’s child or a child in the court system, we understand that 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 EMERGENCY COMMUNICATIONS

- Campus Safety: 755-6888
- Campus Safety Manager’s Pager: 644-3026
- Maintenance: 755-6950
- Facility Emergency Hotline: 755-6700 ext. 5700
- Website Pop-Up Emergency Notice: www.hartnell.edu
- Office of Instruction: 755-6720
- Community Education: 755-6800
A History of the Hartnell Family

WILLIAM EDWARD PETTY HARTNELL was born in 1798 on a country estate in Lancashire, England. He attended Cambridge University and 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 Payeas, 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 Alisal. 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 on the Alisal 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 Ipson. 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 any corrections or additions. We apologize for any errors.
Admissions & Records

The Admissions Office is an integral component of Student Services. The Admissions & Records Office is responsible for the admission and registration processes, and for the accuracy and maintenance of student records.

Hours*
Monday-Thursday: 8:00 a.m.-7:00 p.m.
Friday: 8:00 a.m.-5:00 p.m.
*Hours during student vacation periods may vary and will be posted at the entrance.

ADMISSIONS PROCEDURES

Application for Admission

Applications for Admission are available on the Hartnell College website (www.hartnell.edu/admissions/jump.html) in the Schedule of Classes, or from the Admissions & Records Office at Main Campus, East Campus, and the King City Education Center. Applications can be mailed, faxed, or delivered in person to Admissions & Records. New and returning students should submit applications early in the registration cycle to have the best opportunity to get needed courses. Students who have not attended Hartnell in the last year, must reapply for Admissions before registering. Students attending Hartnell that are in grades K-12 must submit an Application for Admission each semester that they attend until they graduate from high school; at which time a new Application for Admission would need to be submitted to show New Student status.

Criteria for Admission

In addition to the residency requirements listed in the next section, students will or may be admitted to the College as follows:

1. California residents who possess a high school diploma or equivalent, such as a Certificate of Proficiency by the State Board of Education, shall be admitted upon application.
2. Non-residents (students whose legal address is not in the state of California) may be admitted if they have completed high school with a 2.0 (“C”) grade point average or better. Foreign students may be admitted provided they meet the additional requirements outlined under “International Students.”
3. Any other students over the age of 18 who are capable of profiting from instruction offered shall be admitted.
4. Any student who meets the special admission requirements and could benefit from instruction offered shall be admitted.

Residence Requirements for Admissions

California Residents

Resident student classification shall be given to students if they qualify under one of the following conditions:

1. If 19 years of age or over, have resided in California for at least one year and one day prior to the beginning of the semester, and have “manifested the intent” to make California their residence one year and one day prior to the beginning of the semester.
2. If 18 years of age, both the student and the students parents or legal guardian have resided in California for at least one year and one day prior to the beginning of the semester and have “manifested the intent” to make California their residence one year and one day prior to the beginning of the semester.
3. If under 18 years of age, the student’s parents or legal guardian have resided in California for at least one year and one day prior to the beginning of the semester and have “manifested the intent” to make California their residence one year and one day prior to the beginning of the semester.
4. Members of the Armed Forces on active duty, except those assigned to California for educational purposes, are exempt from non-resident tuition. Military dependents, however, are allowed to attend Hartnell College without paying non-resident tuition for one year after being assigned to California. Dependent children of active duty military have one year from the date they reach 18 years of age. After this one year period, all dependents will be reclassified to non-resident status unless documentation can be provided indicating the student has “manifested the intent” to become a legal California resident and has made California their residence one year and one day prior to the beginning of the semester.

In addition, if the student is not a United States citizen, or permanent resident, or on a visa that allows the student to establish California residency, then the student must provide verification that he/she has applied for residency with the Immigration and Naturalization Service (INS) at least one year and one day prior to the beginning of the semester.

In 2001 the California legislature passed a law (AB540) that exempts certain categories of students from paying nonresident tuition. To be eligible you must have completed at least three years of high school and have graduated (or earned a high school equivalency) while living and attending school in California.

If you feel you are eligible for this special exemption, submit the California Nonresident Tuition Exemption Request Form to the Admissions & Records Office for review. The form is available in the class schedule and in the Admissions & Records Office.

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 residence.

CALIFORNIA RESIDENCY STATUS CHANGE

Students who have been out-of-state/non-resident must submit 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

Students not meeting the above requirements, including international students, will be classified as “nonresidents” and are subject to nonresident tuition and the enrollment fee.
International Students
F-1 Visa Status
The Board of Trustees of the Hartnell Community College recognizes that an adequate 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. The College makes every effort to maintain a balanced ratio so that many nations of the world will be represented in the student body. An international student interested in applying should write to the International Student Services Office for application materials. All transcripts (in English), test results, and other required documents must be on file in the International Student Services Office by July 15 for the Fall Semester, November 15 for the Spring Semester, and April 15 for the Summer Session. International Students who are accepted shall pay non-resident tuition prior to the beginning of any academic term at a rate set by the Board of Trustees. In addition, international students must carry a health and accident insurance policy. International students must enroll in and complete at least 12 units each semester. Failure to comply with any of the above will result in dismissal.

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. Once these schedules of classes have been completed for the students, no changes will be allowed without prior approval of the International Student Advisor.

An international student who is accepted by another collegiate institution with F-1 Student Status must attend at least one semester at that institution and successfully complete with a 'C' or better average at least 12.0 units before being considered for admission to Hartnell.

An international student will not be considered for the Apprenticeship and Primary Care Programs.

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.

A student who drops below full-time enrollment, twelve (12.0) units, is subject to expulsion from Hartnell. The student must complete the process for reinstatement to student status.

The College has no scholarships or loans for international students. Residents of the United States Trust Territories may apply for Federal Grants and Federal College work-study through the Hartnell College Office of Financial Aid. After one semester of successful study, a student 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.

Housing—Hartnell College does not have residential facilities on campus. The International Student Services Office will assist students in securing accommodations, but the College is not responsible for arranging housing. Priority of admissions may be given to those students who have relatives or close personal friends who are legal residents of the Hartnell Community College District.

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

Admission Requirements
F-1 Visa Status
1. An applicant must submit the completed International Student Application Packet.
2. An applicant must have sufficient English language ability to enable the student to profit from instruction at the college level. Standardized tests such as the Test of English as a Foreign Language (TOEFL) will be used to determine eligibility for admission. Students will not be admitted solely for special training in English.
3. An applicant must submit, by the appropriate deadline, an official transcript (translated into English) from his/her secondary school showing academic achievement equivalent to an American high school education with a grade of "C" or better.
4. An applicant who has attended other post-secondary institutions, including English Language Schools, must submit official transcripts from each school attended showing satisfactory work.
5. An applicant must present official evidence of financial resources to defray costs during the period of attendance at the College.
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* 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* Program if applicable
   D. Written approval of a Hartnell College counselor

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* Program if applicable
   D. Written approval of Hartnell College Vice President of Student Services.
   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* Program if applicable
   E. Written approval of Hartnell College Superintendent/President

2. Whose age or class 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* Program if applicable

III. Special Summer Session Students
1. 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* Program if applicable
   D. Written approval of a Hartnell College counselor

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 institution has 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 can be found in the Admissions & Records Office on or the web at www.hartnell.edu/admissions/foreign_transcript_evaluation.html

It is highly recommended that you send official transcripts to Admissions & Records so that they can be obtained by any College personnel. Official transcripts may be hand carried to Admissions & Records as long as 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. 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
If you have met the prerequisite at another college, you must see a Hartnell College counselor prior to registration to complete a Prerequisite Clearance form along with your transfer transcript.

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. When 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 500 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 equivalencies, 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 a 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 Attempted</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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<tr>
<td>Art - History of Art</td>
<td>3</td>
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<td>3</td>
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<td>B1 &amp; B3</td>
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<td>Grp A</td>
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<tr>
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<td>A2 &amp; C2</td>
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<tr>
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<td>C2</td>
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<td>Government &amp; Politics: Comparative</td>
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<td>POL 2</td>
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<td>D8</td>
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<tr>
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<td>Soc. &amp; Beh.</td>
<td>D6</td>
<td>3.0</td>
<td>3 or 4</td>
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<td>D6</td>
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<td>3 or 4</td>
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<td>LOTE &amp; 3</td>
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<td>Latin - Vergil</td>
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<tr>
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<td>Humanities</td>
<td>C2</td>
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<td>LOTE &amp; 3</td>
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</tbody>
</table>

Note: The Term Elective(s) means units

*The Minimum Score is determined by CEEB - College Entrance Examination Board & AP - Advanced Placement*
REGISTRATION
See our new on-line services at www.hartnell.edu P.A.W.S. for Students

HOW AND WHEN TO REGISTER
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. A priority registration notice is sent to the student’s address on file about one month prior to registration starting. Continuing students may register using PAWS on-line registration (www.hartnell.edu), ASAP Phone Registration (831) 755-6755, or Mail-In Registration. Any student who misses 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.

New & Returning students are issued a registration appointment time at the time of submission of their Application for Admission. New & Returning students are given appointment times 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) 755-6755, 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 returning students. The completed Concurrent Enrollment packet must be submitted 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.

Check out PAWS (Personal Access Web Services) the new on-line service available to all Hartnell students. Students can now access their student information online, from your 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/Waitlist/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

BELOW ARE THE STEPS TO ENROLL AT HARTNELL COLLEGE

STEP 1:
a) Complete and submit an Application for Admission. Apply on-line at www.hartnell.edu or for tuition complete the Application available in the schedule of classes or from Admission, and then mail it, fax it, or drop it off to Admissions & Records.
b) Apply NOW also for Financial Aid, if applicable. Apply on line 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 @ (831) 755-6806.

STEP 2:
Check for prerequisites for all your courses. Submit official transcripts from high school and/or colleges attended to Admissions & Records at least two weeks before registering. 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* Assessment. Call (831) 755-6634 for an appointment at least two weeks before registering.

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. Register for this course at the same time you are registering for your other courses. 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 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 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 by 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/or check your eligibility for Special Student Services Programs. Call (831) 755-6820 early in the semester to check on your current progress and/or update your educational plan for future semesters.
**STAA* Assessment Requirements**

Before you can register, you must meet assessment requirements as stated in the Schedule of Classes. This is done through the STAA* Assessment Center. STAA* assessment sessions are scheduled daily through the registration period. To find out more about assessment requirements or to make an appointment, call the STAA* 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 approximately 68,500 district residents at least two weeks prior to registration beginning. Additional copies of the schedule may also be obtained 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 may also use PAWS for Students (Schedule of Classes) to see active enrollments in classes. Any changes such as room changes, instructor changes, time changes to course sections in the schedule of classes are reflected 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.

**Add/Drop Period**

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.

**Enrollment Fees**

**Enrollment Fees**

ALL California residents will be charged $20.00 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 approved a fee increase in the 2008-2009 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 2008-2009 school year has been set at $181.00 per unit. Enrollment fees, as indicated previously, are also required for all non-resident and foreign students for a total of $201.00 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 catalogue. Further information concerning tuition and special circumstances for determining California residency is available at the Admissions & Records Office.

**Instructional Materials Fees**

Normally 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 provided that 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 Office of Instruction.

**Student Services Activities Fee**

The Student Services Activities Fee is a student fee and costs $4.00 (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 card holders 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 check or money order for $4.00 for this 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 is charging students for printing in selected areas. Please refer to the procedure in each lab.

**OPTIONAL FEE**

**Student Parking**

This fee is optional. A student may purchase a parking permit for $25.00 each fall/spring semester or $10.00 for the summer. Financial Aid students pay $20.00 each fall/spring semester and $10.00 for summer. A student, who does not wish to purchase a semester parking permit, may purchase a daily parking permit for $1.00 (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 to be submitted by the 4th week of classes. Note, that class(es) must be dropped by the 2nd week for full semester classes. If no Enrollment Fee Refund Request form is submitted, credit balances may be applied or carried forward to future semesters.

Full Semester Classes
(16-to 18-week Classes)

• 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:

<table>
<thead>
<tr>
<th>Course is Scheduled:</th>
<th>Amount Refund if Withdrawal is completed by the end of</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-week session</td>
<td>2nd day of session</td>
</tr>
<tr>
<td>6-week session</td>
<td>3rd day of session</td>
</tr>
<tr>
<td>8-week session</td>
<td>4th day of session</td>
</tr>
</tbody>
</table>

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 to be submitted by the 4th week of classes 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>

<table>
<thead>
<tr>
<th>Summer Sessions</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>50% of the original fees paid</td>
</tr>
<tr>
<td>During the third week of the session</td>
<td>25% of the original fees paid</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, a 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 courses, upon appropriate refund petition and verification shall receive a full enrollment fee refund unless academic credit is awarded.

REQUIRED STUDY LOADS OR GPA (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, 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
3. Varsity Athletes - 12 Units
4. Social Security - 12 Units
PREREQUISITES, COREQUISITES & ADVISORIES

PREREQUISITES
Prerequisite requirements must be met in order to register for classes with a prerequisite. A 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 §55201) A student may challenge any prerequisite by completing a Prerequisite Challenge Petition available in the Admissions & Records Office or the Counseling Department. It is the student’s responsibility to be certain that he/she has met the necessary prerequisite(s) for any course taken. The student will be dropped from any class where it is verified that the necessary prerequisite has not been taken and passed. Prerequisites will be validated after final grades have been posted. See a counselor for assistance to clear any prerequisite requirement.

COURSE PREREQUISITE POLICY
Prerequisite means the preparation for the knowledge or skills considered necessary for success in a course. The 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 you have met the prerequisite at another college, or in high school, or completed the assessment at another college, see your 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 then attached to this form.

A. If the clearance form is for any reason on the front except Placement scores from another college, the form is taken to the Admissions & Records Office for clearance.
B. If the clearance form is using placement scores, the form is taken to the STAAR* Assessment Office for clearance.
C. If the clearance form is for Counseling 21 Orientation Clearance, the form is also taken 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 if “Early Bird” registration is being used, or if during In-Person registration this form must accompany the student’s registration (blue) card or add slip for a manual override.

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 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 Area Dean. Those specifying criteria are to be filed with the Dean of the area in which the course is taught. Upon filing the challenge, the following will occur:

1. Students may enroll in the course by taking a photocopy of the Prerequisite Challenge Form, with the Dean’s signature, to the Admissions and Records Office to enroll in the challenged class.
2. Students will be notified within five (5) instructional days regarding the outcome of the challenge. If the challenge is upheld, the student may remain in the course. (If filed after the first day of classes or if the class is filled, students will be eligible to enroll in the class the following semester.) If the challenge is not upheld, the student will be dropped.

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)
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 which is accessible to all 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 maximized support services which are tailored to the needs of the individual student. We work together as a powerful resource of ideas, experience, and energy. Because of our vision and determination, Student Services is a leader and catalyst for action and change within the Hartnell Community College District.

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, and 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 matriculated 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 catalogue under the heading Counseling. Specialized counseling is also provided through the DSP&S, EOPS, CalWORKS, Veterans and Transfer Center Programs.

Day and evening counseling services are available on both an 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, 755-6820 or contact your counselor directly at his/her office.

STUDENT DEVELOPMENT SERVICES

Matriculation

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

The primary purpose of matriculation is enhancing 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 at least 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.

“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 plan
- 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 have been found 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.)

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 help students place 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 AAAS 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 3 or above in the areas of English – Language & Composition, Math (Calculus AP).
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 inside the Financial Aid Office in Room CAB 167 A. 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 posted on the door of the Assessment Center and 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?
Be sure to bring a photo identification such as a driver's license. You will not be tested unless you have photo identification.

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 Director of Counseling and a Counselor. You can make an appointment with the Director by calling (831) 755-6731.

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?
There is no charge to take the placement assessment.

How long is my placement assessment valid?
Hartnell College recognizes your placement scores for a period of 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 to you 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?
There is no time limit. Most placement assessments take approximately 2 hours.

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 the 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 AAAS 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.
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 755-6820.

EXEMPTION from Orientation and Counseling Services

Hartnell college students may be exempt from Counseling 21: Orientation or Counseling advisement if they:

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 Evaluator 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 COORDINATING/TRAINING, 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 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

The Transfer Center provides information and offers workshops on choosing a college, transfer admission requirements, completing application forms, writing the application essay, and financial aid. Transfer 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 stand the best chance of meeting requirements in a timely manner. They can make the best use of their time and course work 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 availing themselves of Transfer Center resources in making transfer plans.

Once they have chosen a major and the university to which you plan to transfer, students should consult a Hartnell College counselor to discuss Major Preparation. Transfer 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 university to which they plan to transfer to become familiar with specific transfer admission requirements. Many college and university catalogs are available for reference in the Transfer Center, and students may write directly to the Admissions Office or visit the website of the institution to obtain an Information Bulletin that outlines requirements for admission as a transfer student or use the internet.

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 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 Counselor regarding Major Preparation Recommendations for your particular program and university 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 those in 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 and Counseling department sponsors Transfer Day/College Night each fall. Call (831) 759-6007 to schedule an appointment with the Transfer Counselor.
ATHLETICS and SPORTS
The Hartnell College Student Athlete Advising Program parallels the overall philosophical belief that gives full support to all students to develop their abilities to their fullest potential. The College Athletic Department, in concert with Student Services and Counseling organization, direction, and motivation to enable student athletes to establish competencies in academic, career, vocational, and (for some) basic skills. It is our belief that participation in interscholastic sports is an integral part of the broader education spectrum which includes, but is not limited to, academic preparation and the acquisition of vocational and career skills. For specific information and/or an appointment, call 755-6848 or stop by the Student Athlete Counseling Office, located in the Auxiliary Gym, Rm. PE-144.

Intercollegiate Athletics
Hartnell College is a member of the Coast Conference of the California Community and Junior College Association. The College enters into conference competition for men and women (football, cross country, soccer, basketball, volleyball, waterpolo, tennis, softball, baseball, track, swimming). Members of the Coast Conference are Monterey Peninsula College, Cabrillo College, Ohlone College, Skyline College, Mission College, Hartnell College, Canada College, DeAnza College, Foothill College, and Los Medanos College. Intercollegiate athletic competition is governed by the Coast Conference and the California State Athletic Code. Obtaining clearance for athletic eligibility often requires considerable checking of records and code provisions. The procedures should be started well in advance of the opening of each athletic season. The Athletic Director will interpret the State Athletic Code and conference regulations for all persons concerned. A copy of the State Athletic Code is on reserve in the Library.

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, computed since 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 2.00.

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.

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 to 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.

You are encouraged to call or visit the Financial Aid Office for more information. It is located in the College Administration Building, Room 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. The current free application for Federal Student Aid (FAFSA) is available 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.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.
5. 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.

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 may range from $400-$4731 per year depending on Federal allocations.

Federal Academic Competitiveness Grant (ACG)
Grants may range from $750 First year recipient and $1,400 for a second year applicant, depending on Federal allocations. This NEW 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 institution.
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 and 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 Financial 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.

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 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

--A completed Hartnell College Scholarship Application
--A one-page personal statement that includes the applicant's personal and academic goals and financial need, including any special circumstances.
--A letter of recommendation from an individual who is familiar with the applicant's academic progress and goals, such as a teacher or counselor.
--A copy of applicant's unofficial transcripts, which may be obtained and printed through the PAWS account. Nursing scholarships require official transcripts and may be requested through the Admissions and Records Office here and at the college or university you previously attended (if applicable).

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.

Applicants 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 in 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 Room 156C of the CAB building or call 755-6811. Our website is: http://www.hartnell.edu/financial_aid/scholarships

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 under represented 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, single parent population. Grants and allowances for educationally-related expenses (such as meals on campus, parking permits, bus passes, textbooks and supplies) may be awarded as a means of strengthening the 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 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:
   • 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; and
   • College credit for on-the-job training through Cooperative Work Experience.

3. Education, which provides general employment skills and occupational training and is designed to:
   • Prepare people for jobs in the local labor market;
   • Provide intensive, short-term training for higher wage jobs; and
   • 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; and
   • 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 Career Center, Merrill Hall, Room 3, 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 755-6925.
Career Center
The 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 Eureka California Career Information System, available through the Career Center, provides up-to-date computerized labor market and educational information.

For more information call in Career Center at 755-6925.

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

The services include:
- Diagnostic and placement assessment (TABE/CASAS)
- Module delivered GED curriculum
- Supplemental academic support
- Curriculum delivery is regularly reviewed and adjusted by HEP Advisory Committee
- Academic planning and enrollment assistance for Mini-Certificate, Certificate of Achievement, or Associates Degree

Contact HEP
Phone: 770-7070
Fax: 770-7074
Email: HEP@hartnell.edu

Job Bank
The Job Bank, located in the Career Center, provides employment 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 actually 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 the 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.

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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 Merrill Hall, Room 27. Office hours are posted on the door. Interested students may write, drop by, or phone 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 the Admissions and Records Office and Veterans’ Office of any changes in enrollment. The Veterans’ Office is located in HCC-101.

Services for Students with Disabilities (DSP&S)
DSP&S supports students with disabilities. DSP&S 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
- DSP&S Office, Room HCC-102
- Adaptive Computer Technology and Instruction Alternative Media Specialist
  - BUS/CIS 148.1 – 148.3
- Adaptive Physical Education
  - PE 1.147 – 1.223
- 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 DSP&S and make an appointment with a counselor by calling the DSP&S office at (831) 755-6760 (voice) or (831) 770-6199 (TDD). Students may also contact DSP&S through the Hartnell College website at www.hartnell.edu/students/dps

The DSP&S office is located in the College Center, HCC-102.

Hartnell College Catalog – 2008/09
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 International Student Center, located in the Annex, (831) 755-6829. The Center e-mail address is inststud@hartnell.edu. More information about the International Student Center 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 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.

Students of American Indian heritage are provided with intensive student support services: information about the assistance with financial aid and scholarship applications, and transitional services to four-year institutions. The Financial Aid office is located in the Classroom Administration Building room 172, or call 755-6806.

TRIO/Student Support Services Program

The TRIO Student Support Services (SSS) program provides opportunities for academic development, assists students with basic college requirements, and serves to motivate students towards the successful completion of their postsecondary education. The goal of the process of transition from one level of higher education to the next. TRIO SSSP programs help students overcome class, social and cultural barriers to higher education.

Services Include: tutoring, counseling; cultural enrichment; transfer assistance; academic advising; peer mentoring.

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 academic need and a GPA of 2.0 or higher; must be educationally disadvantaged according to federal guidelines.

Contact Information: Director’s e-mail: mbersami@hartnell.edu; Counselor’s e-mail: mzanetti@hartnell.edu; arocha@hartnell.edu. College Annex 113; (831), 759-6013

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 the Administrative Services Office at 755-6995 or come to Room 108A in the Classroom Administration Building to complete the necessary forms.

It is mandatory that international students have health and accident insurance. International student insurance applications may be obtained from the International Student Office located in the College Center Annex, Room 105.

STUDENT LOCKERS

Student lockers may be rented from the cashier located across from the Admissions Office in the Classroom and Administration Building.

LOST AND FOUND

Found articles should be turned in to the Campus Safety office or the switchboard located next to the Cashiers Office in the CAB building, where lost articles may also be claimed.

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 or apartments for the off-campus housing arrangements made by students.

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 Vice President of Student Services, Counseling, and Admissions, located in the Classroom and Administration Building, Room C-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, except those of an emergency nature, 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.
STUDENT ACTIVITIES
Associated Students of Hartnell College

As a student of Hartnell College, you are also a member of the Associated Students, known as ASHC. The ASHC Senate manages the affairs of student activities and student government. The goal of the Senate is to give voice to all students at Hartnell, enabling them to become an integral part of the College community.

The responsibilities of the ASHC Senate are to provide and administer a program of activities and services for students, adopting and supervising an annual ASHC budget, granting club charters, appointing officers and students to campus-wide committees, and sharing in the development of College policies and activities. The ASHC Office is located in the College Center, Room HCC-101A.

Student Clubs
Each year student clubs (honorary, social, service, and special interest) contribute to the College activities program. All club members have a voice through the Inter-Club Council. The Inter-Club Council provides an effective, organized, and fair policy so all clubs will thrive.

To start a club, interested students must complete a Club Packet and submit it to the Inter-Club Council for approval. Information regarding clubs and their programs can be obtained from the Student Activities Coordinator located in the College Center, Room HCC-101.

CAMPUS SECURITY

The Campus Safety Office, located in the College Center should be contacted for assistance with reporting on-campus crimes and emergencies, and locating lost articles. On weekdays, from 8:00 a.m. to 5:00 p.m., the office may be reached by calling 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 757-4302.

When an emergency occurs on campus, call Campus Safety at EXT 6888. An officer will respond and obtain medical assistance. The officer will call a specified college contact to the site to complete accident/injury reports and other essential insurance information. Any questions regarding student injuries or accidents on campus should be directed to the Office of the Manager of Support Operations at 755-6995 or EXT. 6995.

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 Catalogue 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 students 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 credit/no credit 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 students 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 affect the students 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 Admissions 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” 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:

\[
\begin{align*}
4 \text{ units of B x 3 points} &= 12 \text{ grade points} \\
3 \text{ units of A x 4 points} &= 12 \text{ grade points} \\
2 \text{ units of C x 2 points} &= 4 \text{ grade points} \\
3 \text{ units of F x 0 points} &= 0 \text{ grade points} \\
1 \text{ unit of B x 3 points} &= 3 \text{ grade points} \\
\text{13 total units attempted} &= \text{31 total grade points} \\
\text{31 Grade Points} &= 2.38 \text{ Average} \\
\text{13 Total Units Attempted} &= \text{(or a 2.38 GPA)}
\end{align*}
\]

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, and W.

Definitions:

Incomplete (Symbol “I”)

Incomplete academic work for unforeseeable, emergency and justifiable reasons at the end of the term may, result in an “I” symbol being entered in the students 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” grade 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 in incomplete work. The “I” symbol shall not be used in calculating grade point averages, but excessive “W’s” (see Standards of Probation and Dismissal) shall be used as factors in probation and dismissal procedures.

Report Delayed (Symbol “RD”)

The “RD” symbol may be assigned by the Director of Admissions 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.

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 students 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 students record. The “W” shall not be used in calculating grade point averages, but excessive “W’s” (see Standards of Probation and Dismissal) shall be used as factors in probation and dismissal procedures.

The Director of Admissions 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 Admissions will consult with the appropriate faculty. Extenuating circumstances are verified cases of accidents, illnesses, or other circumstances beyond the control of the student.

Grade Change Policy

The determination of a student’s grade by the instructor will be final in the absence of mistake, fraud, bad faith, or incompetency. Grades cannot be changed by retaking examinations or submitting additional coursework after the semester is completed unless an incomplete grade has been issued. Students should submit a request in writing directly to the faculty member within one year after completing the course for which the grade change is being requested. If the faculty member is not available, the request should be submitted through the appropriate Academic Dean or appropriate Vice President; however, only the faculty member that assigned the original grade may authorize a change of grade.

Grade Change Petitions must be hand delivered by the instructor, Academic Dean, or appropriate 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. Work completed at another institution cannot be used to satisfy this requirement.

2. The petition is then submitted to the Vice President of Student Services, for approval or disapproval. If the petition is denied, the student may petition the Academic Council.

If the request is approved, the students 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 Admissions 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 student has repeated the course with an A, B, C, D, F, or P. The grade and credit earned in the second enrollment shall be used exclusively in determining the grade points earned for that particular course.

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.

6. The course is required for recertification or relicensing to meet legally mandated training requirements.

Under This Regulation:

A. A student wishing to repeat a course in which s/he received a substandard grade (D, F, or NP) must file a petition with the Office of Admissions and Records at the time of the second enrollment. No additional signatures are required. The grade and credit earned in the second enrollment shall be used exclusively in determining the grade points earned for that particular course.

B. A student wishing to repeat a class in which s/he received a grade of "C" or higher must obtain the approval of a Hartnell College Counselor and the Vice President of Student Services on the petition before filing it with the Office of Admissions and Records. 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.

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 eighteen (18) units per semester, must review with a counselor and complete an Excess Units Petition. Counselor approval on the Petition is required.
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 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 payable at the Cashier’s Office and will be charged for all instructional materials.
8. Students enrolled in ten or more credit units will not 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, s/he signs the form.
3. The auditor then secures the signature of the Area Dean.
4. The auditor returns the completed petition to Admission and Records.
5. The auditor pays a non-refundable audit fee of $15.00 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, or must present a copy of their Certificate of Articulated Course Completion attached to this petition to have this requirement waived.
2. Students must have a cumulative grade point average of 2.0 or better.
3. 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, which has prepared the student to take the examination.
4. Student must meet all course prerequisites.
5. Student 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.

Removal from Probation

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
1. 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 studies 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 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 students earned cumulative grade point average is less than 2.0 in all units attempted for two (2) consecutive semesters.

Dismissed
A student shall be dismissed when the student’s earned cumulative GPA is below 2.0 for three (3) consecutive semesters.

Standards for Dismissal
For purposes of this section, semesters shall be considered consecutive on the basis of the students 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 fifty percent (50%).

Readmission
Students who have been dismissed from Hartnell College or other accredited collegiate institutions may apply at the Admissions & 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.

The student must complete a student reinstatement form with supporting documentation. Student reinstatement forms can be obtained from the Admissions and Records Office.

If the student is denied reinstatement, the student may petition the Vice President for Instruction. Student petitions can be obtained from the Office of Instruction.

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.
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 Vice President of Student Services.

Student rights and responsibilities are posted at various locations throughout the campus. 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 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 acknowledgement 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.

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 the Associate Vice President for 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 Vice President of Student Services.

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.

a. 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.

b. 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 report or resubmitting as original work to be regarded; or presenting the work of another as one’s own for a grade of points.

c. 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.

d. 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:

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

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

c. Issue a NP or a failing grade for the course. The student will not be permitted to drop the class and will receive an F or NC for the semester grade.

d. Drop the student from the class and assign a withdrawal (W) for the class up to the last day to withdraw from the course. Students dropped after the stated date will be assigned a failing grade (F) for the class, pursuant to the uniform grading policy. The Faculty will refer the case to the Vice President of Student Affairs for record of the violation.

The Associate Vice President of Student Affairs 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 the Hearing Board. If the student wishes to appeal, he/she should contact the Associate Vice President of Student Affairs.
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, invitations, derogatory comments, slurs, jokes, epithets, assaults, touching, impeding or blocking movement, leering, gestures, 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.

PRE-COLLEGIATE 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 their academic (transcript) and 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 records (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 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.
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 2001 cohort is 41%. The statewide average for completion is 35%. The official SRTK transfer rate for Hartnell is 16% and the state average is 21%. 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 57% of the students in the SRTK cohort, another 9% left the college in good standing and 20% were still enrolled. Fourteen percent of the students left the college under other circumstances. This means that 86% 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>41%</td>
<td>16%</td>
<td>47%</td>
</tr>
<tr>
<td>California Community College Average</td>
<td>35%</td>
<td>21%</td>
<td>43%</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 Completions 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 on the Hartnell College web site: http://www.hartnell.edu/irp/efactbook/efactbook_2004/pdf/srtk_36.pdf.
Instructional Programs

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. Such 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.

Counseling Education Programs

In addition to providing counseling services to students, counselors at Hartnell College provide instruction in a wide range of topics. Courses are offered in which a variety of teaching methods, including mechanical and electronic devices, self-instructional materials, and similar techniques are used.

SPECIAL OCCUPATIONAL PROGRAMS

Nursing

Hartnell College offers students the opportunity to major in Nursing (AA Degree) leading to eligibility to write the licensure 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 Community 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 Program offers students the opportunity to complete their requirements as Registered Animal Health Technicians while pursing an associate degree in the same major.

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, the only active apprenticeship program is in 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 endeavor.

Center for Teacher Education

CFTE was established to assist individuals who want to pursue a career in teaching. Selected students are offered a variety of support services such as, academic college planning, information about transfer and financial support as well as counseling and guidance. Candidates participate in activities through the Future Teachers Club, conferences, educational meetings, cultural events, and career fairs. Students enrolled in the program are expected to participate in 30 hours of classroom field experience and prepare to take the CBEST exam. CFTE assists with test preparation and field placement opportunities. Assistance is also provided to those who have attained advanced degrees in teaching or non-teaching fields outside the state or country.

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 catalogue by using the number 39 (or 139 or 239). The same content may not be offered more than three time under Selected Topics. Selected Topics may be repeated for credit if taken with different course content.

COURSE NUMBERING

Courses numbered 199 and below are Associate Degree credit courses and apply toward the 60-unit graduation requirement, either as meeting a major requirement, general education requirement, or as an elective.

Courses numbered 200 or above are non-degree credit courses and do not apply toward the 60-unit graduation requirement for the Associate Degree. Courses numbered 300 or above are non-credit.

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. 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.

College/University requirements and articulation agreements are continually changing; the following pages represent our best attempt to provide current and pertinent information for transfer students.

CSU/UC NOTATIONS ON COURSES

The CSU/UC notation at the end of the course descriptions signify that the course is transferable as elective credit. Courses meeting CSU/UC requirements are listed under California State University System – Admission Requirements and University of California Admission Requirements. Students may use www.assist.org for reference.
ACADEMIC LEARNING CENTER
The Hartnell College Academic Learning Center offers students, under the supervision and guidance of instructors, instructional assistants and trained tutors, 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.

Computer Lab
The Computer Lab, located in CAB 211, offers self-paced courses in how to use computers, internet resources, word processing, keyboarding skills and tutoring on how to use computers in other classes. The lab is open Monday & Wednesday, 9:00 AM – 2:00 PM, Tuesday, Thursday & Friday 9:00 AM – 1:00 PM, Tuesday, Wednesday and Thursday 5:00 PM -8:30 PM, and Saturday 9:00 AM to 1:30 PM. Summer hours may vary. Questions may be asked in person or by calling 755-6777.

Language Lab
The Language Lab, located in CAB 359A, offers drop in foreign language learning support through computer software and tutorial guidance. Students may also enroll in self-paced ESL classes through the Language Lab. Lab hours vary by semester, please see the schedule of classes. Questions may be asked in person or by calling 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, Wednesday & Thursday 6:00 PM – 9:00 PM and Saturday 9:00 AM – 1:00 PM. Summer hours may vary. Questions may be asked in person or by calling 755-6915.

Reading and Writing Lab
The Reading and Writing Lab, located in Annex, offers self-paced, credit/no-credit, open enrollment courses supporting student 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, Wednesday & Thursday 6:00 PM-9:00 PM and Saturday, 9:00 AM – 1:00 PM. Summer hours may vary. Questions may be asked in person or by calling 759-6018.

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 – 2:00 PM. Summer hours may vary. Questions may be asked in person or by calling 755-6866.

In the spring of 2009, all the Academic Learning Center labs will move into the new Center for Assessment and Lifelong Learning (CALL) building.

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 can 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>AA or AS</th>
<th>Certificate</th>
<th>Program</th>
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<th>Certificate</th>
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<td>Elementary Teacher Preparation</td>
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<tr>
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<td>Electronics Technology</td>
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<td>Engineering</td>
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<td>Agriculture:</td>
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<td>Architectural Emphasis * (formerly Drafting)</td>
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<tr>
<td>Agriculture Business Emphasis</td>
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<td>English</td>
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<tr>
<td>Two-Dimensional Emphasis</td>
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<td>Natural Science Emphasis</td>
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<td>Three-Dimensional Emphasis</td>
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<td>Social and Behavioral Sciences Emphasis</td>
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<td>Auto Collision Repair</td>
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<td>History</td>
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<td>Industrial Mechanics</td>
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<tr>
<td>Computer Science and Information Systems:</td>
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<td>Mathematics</td>
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<td>PC and Networking Support Specialist Option</td>
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<td>Music</td>
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<td>Digital And Web Design Option</td>
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<td>Nursing:</td>
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<td>Vocational Nursing</td>
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<td>Construction Technology—Carpentry</td>
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<td>Photography</td>
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<td>Construction Trade Skills</td>
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<td>Digital Arts</td>
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<td>Psychology *</td>
<td>■ AA</td>
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<td>Drafting (see Engineering Technology)</td>
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<td>Spanish *</td>
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<td>Earth Science</td>
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<td></td>
<td>Welding Technology</td>
<td>■ AA</td>
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</tbody>
</table>

*Pending Chancellor's Office approval

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 in 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.
ASSOCIATE OF ARTS OR SCIENCE DEGREE
General Information - 2008/09 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). 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 catalogue 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, CR, NC, 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 that says “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 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 and 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 Degree General Education Course List 2008-2009

### Natural Sciences (3 Units)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>AGR90</td>
<td>Soil Science</td>
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<td>AGR92</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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<td>BIO1</td>
<td>Fundamental Biological Concepts</td>
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<td>BIO2</td>
<td>General Zoology</td>
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<td>General Botany</td>
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<td>BIO5</td>
<td>Human Anatomy</td>
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<td>BIO6</td>
<td>Introductory Physiology</td>
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<td>BIO6L</td>
<td>Physiology Laboratory</td>
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<td>BIO7</td>
<td>General Microbiology</td>
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<td>General Biology</td>
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<td>BIO11</td>
<td>Introductory Human Anatomy and Physiology</td>
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<td>BIO12</td>
<td>Introduction to Genetics</td>
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<td>BIO13</td>
<td>Introduction to Forensic DNA Analysis</td>
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<td>BIO20</td>
<td>Field Biology/Natural Science</td>
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<td>BIO27</td>
<td>Principles of Microbiology</td>
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<td>Human Biology</td>
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<td>BIO47</td>
<td>Ecology</td>
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<td>CHM23</td>
<td>Organic and Biological Chemistry for Health Sciences</td>
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<td>MET1</td>
<td>Meteorology-Weather and Climate</td>
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<td>OCN1</td>
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<td>PHY4B</td>
<td>General Physics/Electricity and Magnetism</td>
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<td>PHY4C</td>
<td>General Physics/Wave, Heat, Light and Modern Physics</td>
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<td>Introduction to Physics</td>
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<td>Introduction to Administration of Justice</td>
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<td>ADJ51</td>
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<td>ANT1</td>
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<td>ANT2</td>
<td>Intro. to Anthropology: Cultural History</td>
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<td>ANT3</td>
<td>Introduction to Archeology</td>
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<td>ANT10</td>
<td>California Indians</td>
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<td>ANT15</td>
<td>North American Indians</td>
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<td>Cultures of Mexico</td>
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ETHNIC GROUPS IN THE UNITED STATES  
(3 Units)

- ANT10 California Indians
- ANT15 North American Indians
- COU35 Intercultural Communication
- ECE53 Teaching in a Diverse Society
- EDU 1 Multicultural Perspectives in Education
- ENG1A College Composition and Reading/Multicultural Perspective*
- ENG1B College Composition and Reading/Multicultural Perspective
- ENG25 American Indian Literature
- ENG26 Chicano Literature
- ETH1 Introduction to Ethnic Studies
- ETH2 Chicano Leadership
- ETH3 Chicanos in American Society
- ETH4 Chicano Culture
- ETH6 La Chicana
- ETH12 Chicano Cinema
- ETH25 American Indian Literature
- HED6 Multicultural Health Beliefs
- HIS10 History of California
- HIS40 History of Women in the US
- HIS40A Race and Ethnicity in American History A
- HIS40B Race and Ethnicity in American History B
- HIS48 African-American History and Culture
- HIS48A Chicano History A
- HIS48B Chicano History B
- MUS5 Ethnic Musics in the United States
- MUS6 Hawaiian Music
- MUS7 Jazz Appreciation
- SOC42 The Sociology of Minority Relations
- SPA35 Literatura chicana
- SPE35 Intercultural Communication

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)

- ENG1A College Composition and Reading
- ENG1A College Composition and Reading/Multicultural Perspective

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
   - MAT16 Finite Mathematics
   - MAT24 Trigonometry
   - MAT25 Pre-Calculus Mathematics
   - MAT122 Plane Geometry
   - MAT123 Intermediate Algebra
   - MAT 123L4 Intermediate Algebra Lab 4

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

COU23 Student Skills for Success: Career Development
COU26 Student Skills for Success: Learning Strategies
COU80 American Sign Language I
COU27 Life Planning
COU35 Intercultural Communication
COU81 American Sign Language II
COU83 American Sign Language III

NOTE: A maximum of 5 units of Math 123, Intermediate Algebra, may be applied towards the AA or AS Degree Requirements.
LOWER-DIVISION TRANSFER PATTERNS (LDTP) PROJECT
The Lower-Division Transfer Pattern (LDTP) project, sponsored by the California State University (CSU) and supported by the California Community Colleges, presents potential transfer students with the most direct path to a bachelor's degree in the CSU system. The LDTP project provides a set of “road maps” for students to follow that will ensure appropriate academic preparation and that will decrease time to graduation once LDTP students enter the CSU. Students may enter into an LDTP agreement up to the time they have completed 45 transferable units. Students who elect to follow the LDTP option will receive the highest priority for admission to a CSU campus.

“Highest priority for admission” is defined as a written guarantee of admission to a particular CSU campus and major, and it goes into effect when both the student and the CSU campus ratify an LDTP agreement. The guarantee is subject both to satisfactory completion of the agreement requirements and to the campus’s ability to accommodate the student. Students will be asked to complete successfully a specified set of general education courses and major courses that will be common to all CSU campuses offering that major, and they will be asked to complete successfully an additional set of courses identified by the particular CSU campus named in the LDTP agreement. The coursework in the systemwide and campus-specific LDTP pattern will total at least 60 units, the number needed to transfer to CSU as an upper-division student. Through CSU Mentor and ASSIST, students and counselors will be able to find road maps detailing coursework preparation by CSU campus and major.

Implementation of the LDTP process is scheduled for Fall 2009.

TRANSFER PLANNING
Students planning to transfer have many options. The California State University with 23 campuses; the University of California with 9 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:

Step 1. Selecting a career goal
Step 2. Selecting an appropriate major to meet your career goal
Step 3. Selecting an appropriate college/university
Step 4. Planning and completing an appropriate transfer program
Step 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 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 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. College/University requirements and articulation agreements are continually changing; the following pages represent our best attempt to provide current and pertinent information for transfer students.

www.assist.org
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.

Guaranteed Transfer Agreement Program
Hartnell College has established a Guaranteed Transfer Agreements with the following Universities: UC Davis, UC Riverside, UC Santa Cruz, CSU San Francisco, CSU Monterey Bay, San Jose State University, Chapman, Golden Gate, and Santa Clara University. The Guaranteed Transfer Agreements works this way: upon completion of 30 transferable units at the required GPA, the student signs an agreement under the auspices of Hartnell College and one or more of the above listed universities; once the student completes specific requirements and 60 transferring units, he or she can transfer to the college or university where the agreement was written.

For further information, contact the Transfer Center at (831) 759-6007 or go to the Transfer Center, Room, HCC-119.
Students who intend to transfer to a California State University or a University of California campus should be aware of a special course numbering system called CAN (California Articulation Number). Articulation refers to the process in which a university accepts certain courses from a community college as equivalent to courses at the university.

The CAN System provides a cross reference number for courses which have been evaluated by faculty and determined to be acceptable “in lieu of” each other. Only lower division, transferable, introductory courses commonly taught on two and four-year college and university campuses are included in the CAN System.

The CAN System is the common numbering system in California. Each campus retains its own course numbers, prefixes, and titles. An example of the CAN numbering system is Economics 1 [CAN ECON 2]. The number 1 is only Hartnell’s number. “ECON 2” is the designation that is used to number the equivalent/articulated course in the CAN system.

The CAN designation is assurance that the course or sequence of courses will be accepted in lieu of an identically designated CAN course or sequence at all participating campuses in California.

CAN numbers are listed in parenthesis after each course description in this catalogue and class schedules.
CALIFORNIA STATE UNIVERSITY SYSTEM – GENERAL EDUCATION PATTERN

The California State University provides California Community College transfer students a general education pattern CSU-GEB for transfer to fulfill all lower division general education requirements. The CSU GEB is accepted at all California State University campuses. The CSU-GEB requires 39 semester units of lower division courses.

Note: A few majors, such as nursing, engineering, science, 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.

General Education-Breadth Requirements for California State University 2008/09

Students planning to graduate from one of the 23 campuses of the California State University (CSU) system must complete 48 semester units of general education breadth courses. Hartnell may certify 39 semester units of lower division (freshman & sophomore) level courses. Nine (9) semester units of general education coursework must be completed at the upper division level after transfer. Do not use this as a guide for the University of California (UC) campuses or for private colleges and universities; please consult the catalogue of the school of your choice and see a counselor for assistance.

The following guidelines will be observed:

1. Lower division General Education-Breadth Requirements Certification should be formally requested from the Hartnell Admissions Office by the student at the beginning of the last term of attendance prior to graduation or transfer.
2. A single course may not meet more than one general education requirement even though some courses may be listed in two areas.
3. General Education units in excess of area maximums will transfer as either elective or pre-major units to the California State University system.
4. If the 39 units are not certified by Hartnell, the completion of lower division General Education program will be determined by the CSU campus.
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.

C.S.U. General Education Distribution Requirements

Area A: Communication & Critical Thinking

(9 Units Required)

Choose one course from each sub-group
A1, A2 and A3

A1 ORAL COMMUNICATION
(3 units required)

SPE1A Essentials of Public Speaking
SPE3 Intro. to Communications
SPE5 Intro. to Organizational Communication

A2 WRITTEN COMMUNICATION
(3 units required)

ENG1A College Composition and Reading
ENG1B College Literature and Composition

A3 CRITICAL THINKING
(3 units required)

ENG2 Critical Thinking and Writing
PHL15 Critical Thinking and Logic

Area B: Physical Universe and Its Life Forms

(9 Units Required)

Choose one course from each sub-group
B1, B2, & B4

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.

B1 PHYSICAL UNIVERSE
(3 units required)

AGR90 Soil Science
AST1 Introduction to Astronomy
CHM1A General Chemistry I
CHM1B General Chemistry II
CHM12A Organic Chemistry I
CHM12B Organic Chemistry II
CHM22 The Science of Chemistry
CHM23 Organic and Biological Chemistry for Health Sciences
CHM60 Principles of Chemistry

GEG1 Introduction to Geography: Physical Elements

GEL1 Dynamic Earth
GEL2 Introduction to Geology
GEL5 History of the Earth
GEL25 Environmental Geology
GEL36 California Geology

(continued)

Area B: Physical Universe

MET1 Meteorology-Weather and Climate
OCN1 Oceanography
PHY2A College Physics I
PHY2B College Physics II
PHY4A General Physics/Mechanics
PHY4B General Physics/Electricity & Magnetism
PHY4C General Physics/Waves, Heat, Light and Modern Physics
PHY10 Introduction to Physics

B2 LIFE FORMS
(3 units required)

AGR92 Plant Science
ANT 1 Intro. to Anthropology: Physical
BIO1 Fundamental Biological Concepts
BIO2 General Zoology
BIO3 General Botany
BIO5 Human Anatomy
BIO6 Introductory Physiology
BIO6L Physiology Laboratory
BIO7 General Microbiology
BIO10 General Biology
BIO11 Introductory Human Anatomy and Physiology
BIO12 Introduction to Genetics
BIO 13 Introduction to Forensic DNA Analysis
BIO20 Field Biology/Natural Science
BIO27 Principles of Microbiology
BIO30 Marine Biology
BIO42 Human Biology
BIO47 Ecology
BIO48 Environmental Science
Area B: Physical Universe (continued)

B3 LABORATORY ACTIVITY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<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 Chemistry 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.

C1 ARTS (ART, DANCE, THEATRE, MUSIC PHOTOGRAPHY)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ART1A</td>
<td>History of Art</td>
</tr>
<tr>
<td>ART1B</td>
<td>History of Art</td>
</tr>
<tr>
<td>ART10</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 C: Arts, Literature (continued)

C2 HUMANITIES (LITERATURE, PHILOSOPHY, FOREIGN LANGUAGE)

<table>
<thead>
<tr>
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<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>FRN1</td>
<td>Elementary French</td>
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<tr>
<td>FRN2</td>
<td>Elementary French</td>
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<tr>
<td>FRN3</td>
<td>Intermediate French</td>
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<td>FRN4</td>
<td>Intermediate French</td>
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<tr>
<td>HIS40</td>
<td>History of Women in the U.S.</td>
</tr>
<tr>
<td>HIS47</td>
<td>Religions of the World</td>
</tr>
<tr>
<td>JPN10</td>
<td>Japanese Language &amp; Culture I</td>
</tr>
<tr>
<td>JPN11</td>
<td>Japanese Language &amp; Culture II</td>
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</tbody>
</table>
Area C: Arts, Literature (continued)

C2 HUMANITIES (LITERATURE, PHILOSOPHY, FOREIGN LANGUAGE)

PHL2 Introduction to Philosophy
PHL6 Introduction to Philosophy: Greek to Medieval Period
PHL8 Introduction to Philosophy: Renaissance to the Twentieth Century
PHL10 Ethics
SPA1 Elementary Spanish
SPA1S Elementary Spanish Speakers
SPA2 Elementary Spanish
SPA2S Elementary Spanish Speakers
SPA2X Spanish for Chicano Students
SPA3 Intermediate Spanish
SPA3S Intermediate Spanish Speakers
SPA4 Intermediate Spanish
SPA4S Intermediate Spanish Speakers
SPA35 Literatura chicana

NOTE: Spanish 1X does not meet this requirement, but is transferable as elective credit.

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 (1) History 40 or History 17A or 17B to satisfy the U.S. History requirement and (2) Political Science 1. American Political Institutions, to satisfy the U.S. Constitution California State and local Government requirements. Hartnell will certify both of these courses toward satisfying the Area D requirement.

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 units from Area D.

Area D: Social, Political & Economic Institutions (9 Units Required)

No more than two courses may be counted from any single classification

D1 through D10 (*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

ETH1 Introduction to Ethnic Studies
ETH2 Chicano Leadership
ETH3 Chicanos in American Society
ETH4 Chicano Culture
ETH25 American Indian Literature
PSY36 Psychology of “La Mujer”

D4 GENDER STUDIES

PSY36 Psychology of “La Mujer”

D5 GEOGRAPHY

GEG1 Introduction to Geography: Physical Elements
GEG2 Introduction to Geography: Cultural Elements
HIS4A Western Civilization A

D6 HISTORY

HIS4A Western Civilization A
HIS4B Western Civilization B
HIS10 History of Technology
HIS17A United States A
HIS17B United States B
HIS47 Religions of the World
HIS48 African American History and Culture
HIS49A Chicano History A
HIS49B Chicano History B
HIS51 Women in History

Area D: Social, Political (continued)

D7 INTERDISCIPLINARY SOCIAL OR BEHAVIORAL SCIENCE

COU35 Intercultural Communication
PSY36 Psychology of “La Mujer”
SPE8 Interpersonal Communication
SPE35 Intercultural Communication

D8 POLITICAL SCIENCE, GOVERNMENT, AND LEGAL INSTITUTIONS

POL1 American Political Institutions
POL2 Contemporary Governments Abroad

D9 PSYCHOLOGY

PSY1A General Psychology
PSY14 Child Psychology
PSY22 Abnormal Psychology
PSY33 Personal and Social Adjustment
PSY41 Psychology of Human Relations

D10 SOCIOLOGY AND CRINOMINOLOGY

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

BIO42 Human Biology
COU23 Student Skills for Success: Career Development
COU27 Life Planning
FCS14 Child Development
FCS23 Nutrition
GEL25 Environmental Geology
HED2 Health Education
PSY14 Child Psychology
PSY15 Human Sexuality
PSY33 Personal and Social Adjustment
PSY36 Psychology of “La Mujer”
PSY41 Psychology of Human Relations
SOC5 Introduction to Social Problems
SOC41 Marriage and the Family
INTERSEGMENTAL 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, science, 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 2008/09

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

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
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 41 Art of Steinbeck
English 44A World Literature I
English 44B World Literature II

**Indicates that transfer credit may be limited by UC or CSU or both. Please consult with a counselor.
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
FCS 14 Child Development
Geography 2 Intro. to Geography: Cultural Elements
History 40 History of Women in the U.S.
Poli Sci 1 American Political Institutions
Poli Sci 2 Contemporary Governments Abroad
Psych 1A General Psychology
Psych 1B General Psychology
Psych 14 Child Psychology
Psych 22 Abnormal Psychology
Psych 36 Psychology of “La Mujer”
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.

Agric 90 Soil Science
Anthro 1 Introduction to Anthropology: Physical
Astronomy 1 Introduction to Astronomy
Astronomy 1L Astronomy Laboratory
Chem 1A General Chemistry I
Chem 1B General Chemistry II
**Chem 12A Organic Chemistry I
Chem 12B Organic Chemistry II
**Chem 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
**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

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.

Biological Sciences Courses
All courses with a lab component are bold face type.

Agriculture 92 Plant Science
Biological Science 1 Fundamental Biological Concepts
**Biological Science 2 General Zoology
**Biological Science 3 General Botany
Biological Science 5 Human Anatomy
Biological Science 6 Introductory Physiology
Biological Science 6L Physiology Laboratory
Biological Science 7 General Microbiology
**Biological Science 10 General Biology
Biological Science 11 Introductory Human Anatomy
Biological Science and Physiology
Biological Science 12 Introduction to Genetics
Biological Science 20 Field Biology/Natural Science
Biological Science 27 Principles of Microbiology w/lab
Biological Science 30 Marine Biology
Biological Science 42 Human Biology
Biological Science 47 Ecology
Biological Science 48 Environmental Science

UC REQUIREMENT ONLY
AREA 6 Languages Other Than English
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:

Coun 80 American Sign Language I
Coun 81 American Sign Language II
Coun 83 American Sign Language III
French 1 Elementary French
French 2 Elementary French
French 3 Intermediate French
French 4 Intermediate French
Spanish 1 Elementary Spanish
Spanish 1B Elementary Spanish
Spanish 1S Elementary Spanish
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

CSU REQUIREMENT ONLY
CSU graduation requirement in US History Constitution, and American Ideals may be completed prior to transfer by completing:
Poli Sci 1 American Political Institutions and History 17A United States History I or History 17B United States History II or History 40 History of Women in the U.S. Students planning on transfer to a CSU are advised to complete HIS 17A or 17B for Area 3 and POL 1 for Area 4.
ADMINISTRATION OF JUSTICE—CORRECTIONAL SCIENCE—ASSOCIATE OF SCIENCE DEGREE

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.

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.

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>
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<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>
</tr>
</tbody>
</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>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>ADJ-7</td>
<td>Internship in Criminal Justice</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ADJ-10</td>
<td>Juvenile Procedures</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ADJ-45</td>
<td>Special Projects</td>
<td>1.0-3.0</td>
</tr>
<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-102</td>
<td>PC 832 Arrest and Firearms</td>
<td>3.5</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>
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</tr>
<tr>
<td>Elective</td>
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<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
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</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></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>

**SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE**

- REQUIRED MAJOR UNITS: 24.0
- RESTRICTED MAJOR ELECTIVE UNITS: 9.0
- ELECTIVES: 6.0
- REQUIRED GENERAL EDUCATION UNITS: 21.0
- DEGREE 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.

Hartnell College Catalog – 2008/09
**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.

<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>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>
</tr>
<tr>
<td>Required Major Course</td>
<td>ENG-1A</td>
<td>College Composition and Reading</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>

*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—ASSOCIATE OF SCIENCE DEGREE

The Administration of Justice programs include the theory and practice of law enforcement, correctional science and paralegal/legal assistance. 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.

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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.

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>
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<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>ADJ-1</td>
<td>Introduction to Administration of Justice</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ADJ-2</td>
<td>Community Relations: Multicultural Discrimination</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-4</td>
<td>Criminal Evidence</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ADJ-5</td>
<td>Criminal Procedures</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-21A</td>
<td>Narcotics and Dangerous Drugs</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (21.0)

<table>
<thead>
<tr>
<th>REQUIRED 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>ADJ-7</td>
<td>Internship in Criminal Justice</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ADJ-8</td>
<td>Criminal Investigation</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ADJ-10</td>
<td>Juvenile Procedures</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ADJ-30</td>
<td>Sexual Assault Investigation</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ADJ-45</td>
<td>Special Projects</td>
<td>1.0-3.0</td>
</tr>
<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-102</td>
<td>PC 832 Arrest and Firearms</td>
<td>3.5</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>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</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</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></td>
<td>ENG-1A College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical</td>
<td></td>
<td>MAT-123 Intermediate Algebra</td>
<td>5.0</td>
</tr>
<tr>
<td>Thinking (Select a minimum of 1</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>unit from catalog GENERAL</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>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

**SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE**

- REQUIRED MAJOR UNITS 21.0
- RESTRICTED MAJOR ELECTIVE UNITS 9.0
- ELECTIVES 9.0
- REQUIRED GENERAL EDUCATION UNITS 21.0
- DEGREE TOTAL UNITS 60.0

TRANSFER STUDENTS

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<th>Course No.</th>
<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-2</td>
<td>Community Relations: Multicultural Diversity/Discrimination</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-4</td>
<td>Criminal Evidence</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ADJ-5</td>
<td>Criminal Procedures</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-21A</td>
<td>Narcotics and Dangerous Drugs</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ENG-1A</td>
<td>College Composition and Reading</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>

**TOTAL UNITS (≥ 24.0)**

*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—PARALEGAL/LEGAL ASSISTANTSHIP—ASSOCIATE OF ARTS DEGREE
(Pending Chancellor’s Office approval)

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.

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<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>ADJ-22</td>
<td>Criminal Procedure</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ADJ-25</td>
<td>Introduction to Paralegal/Legal Assistantship</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ADJ-26</td>
<td>Contracts</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ADJ-27</td>
<td>Civil Litigation</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ADJ-28</td>
<td>Legal Research and Writing</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUSC-109</td>
<td>Introduction to PC Applications</td>
<td>4.0</td>
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SUBTOTAL UNITS (22.0)

<table>
<thead>
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<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>Required Major Course</td>
<td>ADJ-4</td>
<td>Criminal Evidence</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ADJ-7</td>
<td>Internship in Criminal Justice</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ADJ-33</td>
<td>Constitutional Law for Criminal Justice Professionals</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ADJ-35</td>
<td>Torts/Personal Injury Law</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ADJ-38</td>
<td>Family Law</td>
<td>3.0</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>RE-146</td>
<td>Legal Aspects of Real Estate</td>
<td>3.0</td>
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</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>
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<td></td>
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<tr>
<td>Elective</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (8.0)

<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>
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<tr>
<td>Social &amp; Behavioral Sciences</td>
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<td></td>
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<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-123P</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (21.0)

TOTAL UNITS (60.0)

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* These courses are also Required Major Courses

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Hartnell College Catalog – 2008/09
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<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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-5</td>
<td>Criminal Procedures</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ADJ-25</td>
<td>Introduction to Paralegal/Legal Assistantship</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ADJ/BUS-26</td>
<td>Contracts</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ADJ-34</td>
<td>Civil Litigation</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ADJ-36</td>
<td>Legal Research and Writing</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>ENG-101*</td>
<td>Intermediate Composition and Reading or Composition and Grammar for ESL</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-201**</td>
<td>Prealgebra</td>
<td>(3.0)</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (22.0)**

<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>ADJ-4</td>
<td>Criminal Evidence</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ADJ-7</td>
<td>Internship in Criminal Justice</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ADJ-33</td>
<td>Constitutional Law for Criminal Justice Professionals</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ADJ-35</td>
<td>Torts/Personal Injury Law</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ADJ-38</td>
<td>Family Law</td>
<td>3.0</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>RE-146</td>
<td>Legal Aspects of Real Estate</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (9.0)**

**TOTAL 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.
Agriculture—Business Emphasis—Associate of Science Degree

Agriculture—Production Emphasis—Associate of Science Degree

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.

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>AGR-57</td>
<td>Agriculture Computer Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-90</td>
<td>Soil Science</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-91</td>
<td>Agriculture Laws &amp; Regulations</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-92</td>
<td>Plant Science</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-99</td>
<td>Cooperative Work Experience</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-110</td>
<td>Careers in Agriculture and Technology</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**CHOose A Single Area of Emphasis:** Complete 14.0 units in one of the areas of emphasis listed below.

**Required Major Courses (Agriculture Business Emphasis)**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGR-24</td>
<td>Agri-Business Management Project</td>
<td>2.0</td>
</tr>
<tr>
<td>AGR-49</td>
<td>Introduction to Agriculture Business</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-52</td>
<td>Sales &amp; Service in Agribusiness</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-53</td>
<td>Agribusiness Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-54</td>
<td>Agriculture Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-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 (17.0)**

**Required Major Courses (Agriculture Production Emphasis)**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGR-3</td>
<td>Cooperative Enterprise Project</td>
<td>2.0</td>
</tr>
<tr>
<td>AGR-56</td>
<td>Introduction to Mechanized Agriculture</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-61</td>
<td>Pesticide Applicator Certification Training</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-63</td>
<td>Applied GPS Technology</td>
<td>4.0</td>
</tr>
<tr>
<td>AGR-93</td>
<td>Product Processing &amp; Cooling</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-96</td>
<td>Vegetable Crop Production</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-97</td>
<td>Vineyard Production &amp; Management</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-98</td>
<td>Fertilizers &amp; Plant Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-180</td>
<td>Introduction to Agriculture</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Subtotal Units (14.0)**

**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)**
## CON’T OF
AGRICULTURE—BUSINESS EMPHASIS—ASSOCIATE OF SCIENCE DEGREE
AGRICULTURE—PRODUCTION EMPHASIS—ASSOCIATE OF SCIENCE DEGREE

<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>
</tbody>
</table>

**Language and Rationality (9 Units)**

A. Written Composition
   - ENG-1A College Composition and Reading 3.0

B. Communication and Analytical Thinking
   - MAT-123* Intermediate Algebra 5.0

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></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 fulfills this requirement.

†These courses are also Required Major Courses

### SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED MAJOR UNITS</td>
<td>17.0</td>
<td></td>
</tr>
<tr>
<td>REQUIRED MAJOR EMPHASIS UNITS</td>
<td>14.0</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE UNITS</td>
<td>8.0</td>
<td></td>
</tr>
<tr>
<td>REQUIRED GENERAL EDUCATION UNITS</td>
<td>21.0</td>
<td></td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
<td>60.0</td>
<td></td>
</tr>
</tbody>
</table>

### 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.
AGRICULTURE—BUSINESS EMPHASIS—CERTIFICATE OF ACHIEVEMENT
AGRICULTURE—PRODUCTION 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.

### REQUIRED MAJOR COURSES

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGR-90</td>
<td>Soil Science</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-91</td>
<td>Agriculture Laws &amp; Regulations</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-92</td>
<td>Plant Science</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-57</td>
<td>Agriculture Computer Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-99</td>
<td>Cooperative Work Experience</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-110</td>
<td>Careers in Agriculture and Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>ENR-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>Elementary Algebra</td>
<td>(5.0)</td>
</tr>
<tr>
<td>MAT-121**</td>
<td>Elementary Algebra</td>
<td>(5.0)</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.**

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

#### REQUIRED MAJOR COURSES (AGRICULTURE BUSINESS EMPHASIS)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGR-24</td>
<td>Agri-Business Management Project</td>
<td>2.0</td>
</tr>
<tr>
<td>AGR-49</td>
<td>Introduction to Agriculture Business</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-52</td>
<td>Sales and Service in Agribusiness</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-53</td>
<td>Agribusiness Economics</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-54</td>
<td>Agriculture Marketing</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-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>

**Eligibility for ENG-1A fulfills this requirement.**

### REQUIRED MAJOR COURSES (AGRICULTURE PRODUCTION EMPHASIS)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGR-3</td>
<td>Agriculture Enterprise Project</td>
<td>2.0</td>
</tr>
<tr>
<td>AGR-56</td>
<td>Introduction to Mechanized Agriculture</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-61</td>
<td>Pesticide Applicator Certification Training</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-63</td>
<td>Applied GPS Technology</td>
<td>4.0</td>
</tr>
<tr>
<td>AGR-93</td>
<td>Product Processing &amp; Cooling</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-96</td>
<td>Vegetable Crop Production</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-97</td>
<td>Vineyard Production and Management</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-98</td>
<td>Fertilizers and Plant Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-160</td>
<td>Introduction to Agriculture</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Eligibility for ENG-1A fulfills this requirement.**

### TOTAL UNITS (≥ 31.0)

<table>
<thead>
<tr>
<th>SUBTOTAL UNITS (≥14.0)</th>
<th>SUBTOTAL UNITS (≥14.0)</th>
<th>SUBTOTAL UNITS (≥17.0)</th>
</tr>
</thead>
</table>
AGRICULTURE—PRECISION TECHNOLOGY—AGRICULTURE EMPHASIS—ASSOCIATE OF SCIENCE DEGREE
(Pending Chancellor’s Office Approval)

AGRICULTURE—PRECISION TECHNOLOGY—ENGINEERING EMPHASIS—ASSOCIATE OF SCIENCE DEGREE
(Pending Chancellor’s Office Approval)

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.

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**REQUIRED MAJOR COURSES**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGR-110</td>
<td>Careers in Agriculture and Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>AGR-57</td>
<td>Agriculture Computer Applications</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-63</td>
<td>Applied GPS Technology</td>
<td>4.0</td>
</tr>
<tr>
<td>AGR/CSS/DRA-86</td>
<td>Introduction to GIS</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-90</td>
<td>Soil Science</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-91</td>
<td>Agriculture Laws and Regulations</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-99</td>
<td>Cooperative Work Exp-Internship</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**CHOSE A SINGLE AREA OF EMPHASIS:** Complete all units in one of the areas of emphasis listed below

**REQUIRED MAJOR COURSES (AGRICULTURE EMPHASIS)**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGR-64</td>
<td>Crop and Yield Monitoring</td>
<td>4.0</td>
</tr>
<tr>
<td>AGR-92</td>
<td>Plant Science</td>
<td>3.0</td>
</tr>
<tr>
<td>AGR-96</td>
<td>Vegetable Crop Production</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**REQUIRED MAJOR COURSES (ENGINEERING EMPHASIS)**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGN-1A</td>
<td>Plane Surveying</td>
<td>3.0</td>
</tr>
<tr>
<td>EGN-2</td>
<td>Engineering Graphics</td>
<td>4.0</td>
</tr>
<tr>
<td>DRA-52</td>
<td>Introduction to AutoCAD</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**ELECTIVES (Courses Numbered 1–199)**

Elective
Elective
Elective

**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>

**SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE**

<table>
<thead>
<tr>
<th>REQUIRED MAJOR UNITS</th>
<th>21.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED MAJOR UNITS EMPHASIS</td>
<td>10.0</td>
</tr>
<tr>
<td>ELECTIVE UNITS</td>
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<tr>
<td>REQUIRED GENERAL EDUCATION UNITS</td>
<td>21.0</td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
<td>60.0</td>
</tr>
</tbody>
</table>

**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.
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.

### AGRICULTURE—PRECISION TECHNOLOGY—AGRICULTURE EMPHASIS—CERTIFICATE OF ACHIEVEMENT

*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.

<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>AGR-110</td>
<td>Careers in Agriculture and Technology</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AGR-57</td>
<td>Agriculture Computer Applications</td>
<td>3.0</td>
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<tr>
<td>Required Major Course</td>
<td>AGR-63</td>
<td>Applied GPS Technology</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AGR-64</td>
<td>Crop and Yield Monitoring</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AGR/CSS/DRA-66</td>
<td>Introduction to GIS</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AGR-90</td>
<td>Soil Science</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AGR-91</td>
<td>Agriculture Laws and Regulations</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AGR-92</td>
<td>Plant Science</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AGR-96</td>
<td>Vegetable Crop Production</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AGR-99</td>
<td>Cooperative Work Exp-Internship</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>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>

**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.

TOTAL UNITS (≥31.0)
**AGRICULTURE—PRECISION TECHNOLOGY—ENGINEERING 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>✓</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>AGR-110</td>
<td>Careers in Agriculture and Technology</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AGR-57</td>
<td>Agriculture Computer Applications</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AGR-63</td>
<td>Applied GPS Technology</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AGR/CSS/DRA-66</td>
<td>Introduction to GIS</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AGR-90</td>
<td>Soil Science</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AGR-91</td>
<td>Agriculture Laws and Regulations</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AGR-99</td>
<td>Cooperative Work Exp-Internship</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Required Major Course</td>
<td>EGN-1A</td>
<td>Plane Surveying</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Required Major Course</td>
<td>EGN-2</td>
<td>Engineering Graphics</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-52</td>
<td>Introduction to AutoCAD</td>
<td>3.0</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-123**</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
<td></td>
</tr>
</tbody>
</table>

*Totals: 57 Units (≥ 31.0)

*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.
**ANIMAL HEALTH TECHNOLOGY—ASSOCIATE OF SCIENCE DEGREE**

The Hartnell College Animal Health Technology Program offers a comprehensive program on skills and knowledge relating to veterinary medicine in preparation for a job as a Registered Veterinary Technician and is fully accredited with the American Veterinary Medical Association. All graduates receive Associates in Science Degree in Animal Health Technology and are then eligible to sit for the California State Registered Veterinary Technician Licensing Examination and the Veterinary Technician National Examination. The Animal Health Technology Program is a demanding and academically challenging two-year program and requires an application for admission into the program. It is not intended to be a pre-veterinary medicine or veterinary medicine curriculum. Students enrolled in the Animal Health Technology Program will have opportunities to explore many areas of Veterinary Medicine incorporating a large variety of animal species. These opportunities include shelter medicine, marine animal medicine and research, small and large animal medicine and exotic animal medicine.

The demand for Registered Veterinary Technicians is high. These jobs include small and large private animal practice, clinical laboratories, pharmaceutical companies, education, marine animal medicine and research, government agencies, research, and the biomedical industry.

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.

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>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>2.5</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AHT-108</td>
<td>Veterinary Office 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>
</tr>
<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 II</td>
<td>1.0</td>
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<tr>
<td>Required Major Course</td>
<td>AHT-114C</td>
<td>Applied Animal Health Care II</td>
<td>0.5</td>
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<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</td>
<td>Principles of Chemistry or</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CHM-22 or</td>
<td>The Science of Chemistry or</td>
<td>(4.0)</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CHM-1A</td>
<td>General Chemistry I</td>
<td>(5.0)</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (69.0)**

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

**SUBTOTAL UNITS**

<table>
<thead>
<tr>
<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</td>
<td>BIO-10P</td>
<td>General Biology</td>
<td>4.0</td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(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>(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></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(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-123E</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>
</tbody>
</table>

**SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE**

<table>
<thead>
<tr>
<th>REQUIRED MAJOR UNITS</th>
<th>65.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELECTIVE UNITS</td>
<td>8.0</td>
</tr>
<tr>
<td>REQUIRED GENERAL EDUCATION UNITS</td>
<td>21.0</td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
<td>86.0</td>
</tr>
</tbody>
</table>

**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.
ART—ASSOCIATE OF ARTS DEGREE

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 is 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 improve their ability to communicate ideas through added knowledge and greater intercultural understanding.

The majority of these 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 therapist, art critic, art dealer, ceramicist, industrial designer, display designer, designer, gallery director, historian, merchant, sculptor, muralist, or painter.

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>ART-3</td>
<td>Drawing and Composition</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>ART-12A</td>
<td>Design</td>
<td>3.0</td>
</tr>
<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>ART-1B</td>
<td>History of Art</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>
</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-6A</td>
<td>Watercolors and Gouache</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-15B</td>
<td>Ceramics B</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-33</td>
<td>Weaving</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-41A</td>
<td>Jewelry I</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>

<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 (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>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>CER-1A*</td>
<td>History of the United States</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 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>

| SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE                        |       |
| REQUIRED MAJOR UNITS                                                    | 18.0  |
| RESTRICTED MAJOR UNITS                                                   | 3.0   |
| ELECTIVE UNITS                                                           | 8.0   |
| REQUIRED GENERAL EDUCATION UNITS                                         | 21.0  |
| DEGREE 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.
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>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<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>
<td>3.0</td>
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</tbody>
</table>

<table>
<thead>
<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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</table>

<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>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TOTAL UNITS for 2D (≥ 24.0)</th>
<th>SUBTOTAL UNITS (6.0)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>TOTAL UNITS for 3D (≥ 24.0)</th>
<th>SUBTOTAL UNITS (6.0)</th>
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<tbody>
<tr>
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</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.
AUTO COLLISION REPAIR—ASSOCIATE OF SCIENCE DEGREE

The Auto Collision Repair programs are designed to provide up-to-date training according to ICAR qualification standards. Students prepare for entry-level positions in auto collision repair occupations and to upgrade skills of those already in the field. 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.

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</td>
<td>Introduction to Auto Collision Repair &amp; Refinishing or</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td>Introduction to Auto Collision Repair &amp; Refinishing (A, B, and C)</td>
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</tr>
<tr>
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<td>AUC-150A</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AUC-150C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Required Major Course</td>
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<td>3.0</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td>Spot Repair &amp; Refinishing (A, B, and C)</td>
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</tr>
<tr>
<td></td>
<td>AUC-70A</td>
<td></td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>and</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AUC-70B</td>
<td></td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>and</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>AUC-70C</td>
<td></td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUC-173</td>
<td>Auto Body Repair and Replacement or</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>or</td>
<td>Auto Body Repair and Replacement (A, B, and C)</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>AUC-173A</td>
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<tr>
<td></td>
<td>and</td>
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<td></td>
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<tr>
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<td>AUC-173B</td>
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<td></td>
<td>AUC-173C</td>
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<td>2.0</td>
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<tr>
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<td>AUC-174A</td>
<td>Frame and Unibody Repair</td>
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<td>AUC-174B</td>
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<td>Required Major Course</td>
<td>AUT-50</td>
<td>Introduction to Automotive Repair</td>
<td>4.0</td>
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<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>
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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>
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<tr>
<td>Elective</td>
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<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 a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
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<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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<tr>
<td>Humanities (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
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<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 Rationale (9 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></td>
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<tr>
<td>Communication and Analytical Thinking</td>
<td>MAT-123+</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED MAJOR UNITS</td>
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<td>REQUIRED GENERAL EDUCATION UNITS</td>
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<tr>
<td>DEGREE TOTAL UNITS</td>
<td>60.0</td>
</tr>
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</table>

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 – 2008/09
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>
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<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</td>
<td>Introduction to Auto Collision Repair &amp; Refinishing or</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>AUC-150A</td>
<td>Introduction to Auto Collision Repair &amp; Refinishing</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>AUC-150B</td>
<td></td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>AUC-150C</td>
<td></td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUC-70 or</td>
<td>Spot Repair &amp; Refinishing or</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>AUC-70A</td>
<td>Spot Repair &amp; Refinishing</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>AUC-70B</td>
<td>Spot Repair &amp; Refinishing</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>AUC-70C</td>
<td>Spot Repair &amp; Refinishing</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AUC-173 or</td>
<td>Auto Body Repair and Replacement or</td>
<td>5.0</td>
</tr>
<tr>
<td></td>
<td>AUC-173A</td>
<td>Auto Body Repair and Replacement and</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>AUC-173B</td>
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<td>AUC-173C</td>
<td>Auto Body Repair and Replacement</td>
<td>2.0</td>
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<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-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>
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<tr>
<td>Required Major Course</td>
<td>MEC-169</td>
<td>Hazardous Materials and Industrial Safety</td>
<td>1.0</td>
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<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*</td>
<td>Intermediate Composition and Reading or</td>
<td>(3.0)</td>
</tr>
<tr>
<td></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-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.
AUTOMOTIVE TECHNOLOGY—AUTOMOTIVE SHOP MANAGEMENT—ASSOCIATE OF SCIENCE DEGREE

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, supply sales, and factory products representatives. Classes are designed to provide a broad exposure to industry procedures and practices.

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.

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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<tr>
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<th>Course No.</th>
<th>Course Title</th>
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</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>
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<tr>
<td>Required Major Course</td>
<td>AUT-179</td>
<td>Automotive Business and Shop Management</td>
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<tr>
<td>Required Major Course</td>
<td>AUT-110</td>
<td>Automotive Climate Control</td>
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<tr>
<td>Required Major Course</td>
<td>BUS-32</td>
<td>Introduction to Business</td>
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<tr>
<td>Required Major Course</td>
<td>CSS-43</td>
<td>Computer Systems and Information Literacy</td>
<td>4.0</td>
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</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>
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<td>Humanities (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
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<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>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

**SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE**

| REQUIRED MAJOR UNITS | 39.0 |
| REQUIRED GENERAL EDUCATION UNITS | 21.0 |
| DEGREE TOTAL UNITS | 60.0 |
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>
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<tr>
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<td>Fuel Systems and Emissions Control</td>
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<td>Required Major Course</td>
<td>AUT-179</td>
<td>Automotive Business and Shop Management</td>
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<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>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.
AUTOMOTIVE TECHNOLOGY—GENERAL AUTOMOTIVE MECHANICS—ASSOCIATE OF SCIENCE DEGREE

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.

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.

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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<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
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</thead>
<tbody>
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<td>AUT-50</td>
<td>Introduction to Automotive Repair</td>
<td>4.0</td>
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<tr>
<td>AUT-51</td>
<td>Auto Engine Performance and Diagnostics</td>
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<td>AUT-103</td>
<td>Automotive Engines</td>
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<tr>
<td>AUT-71</td>
<td>Automotive Brakes and Controls</td>
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</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>
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<td>Automotive Wheel Alignment and Suspension</td>
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</tr>
<tr>
<td>CSS-43</td>
<td>Computer Systems and Information Literacy</td>
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</table>

**SUBTOTAL UNITS (40.0)**

### REQUIRED GENERAL EDUCATION COURSES

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
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<td>ENG-1A</td>
<td>College Composition and Reading</td>
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</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

### SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE

<table>
<thead>
<tr>
<th>REQUIRED MAJOR UNITS</th>
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<td>REQUIRED GENERAL EDUCATION UNITS</td>
<td>21.0</td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
<td>61.0</td>
</tr>
</tbody>
</table>
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>
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<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-71</td>
<td>Auto Brakes Systems 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>Auto Electricity and Electronics</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>AUT-103</td>
<td>Automotive Engines</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>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>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.
AUTOMOTIVE TECHNOLOGY—HEAVY DUTY DIESEL TECHNOLOGY—TRANSPORTATION—ASSOCIATE OF SCIENCE DEGREE

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.

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-150</td>
<td>Introduction to Heavy Duty Diesel Technology</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT-151</td>
<td>Heavy Duty Diesel Preventive Maintenance</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT-152</td>
<td>Heavy Duty Diesel Electrical and Basic Electronics</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT-153</td>
<td>Heavy Duty Diesel Brakes, Steering and Suspension</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT-154</td>
<td>Heavy Duty Diesel Engine Performance and Diagnostics</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT-155</td>
<td>Heavy Duty Diesel Climate Control</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT-156</td>
<td>Heavy Duty Diesel Engine Rebuild</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT-157</td>
<td>Heavy Duty Diesel Electronic Systems and Controls</td>
<td>4.0</td>
</tr>
<tr>
<td>AUT-158</td>
<td>Heavy Duty Diesel Power Drive Train</td>
<td>3.0</td>
</tr>
<tr>
<td>AUT-159</td>
<td>Heavy Duty Diesel Automatic Transmissions</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><strong>SUBTOTAL UNITS (39.0)</strong></td>
<td></td>
<td>39.0</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><strong>SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>REQUIRED MAJOR UNITS</td>
<td>39.0</td>
<td></td>
</tr>
<tr>
<td>REQUIRED GENERAL EDUCATION UNITS</td>
<td>21.0</td>
<td></td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
<td>60.0</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
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* 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>

*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

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).

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-1 or</td>
<td>Physical Anthropology or Introduction to Anthropology: Cultural</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ANT-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PSY-1A</td>
<td>General Psychology</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>
</tr>
</tbody>
</table>

| SUBTOTAL UNITS (9.0) |

<table>
<thead>
<tr>
<th>RESTRICTED MAJOR ELECTIVES (Select 9.0 units from a minimum of the following)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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-2</td>
<td>Introduction to Anthropology: Cultural</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>PSY-14</td>
<td>Child Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>PSY-15</td>
<td>Human Sexuality</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>PSY-22</td>
<td>Abnormal Psychology</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>SOC-5</td>
<td>Introduction to Social Problems</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>SOC-41</td>
<td>Marriage &amp; the Family</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>SOC-42</td>
<td>The Sociology of Minority Relations</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>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</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</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 (Select one course from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td></td>
<td></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>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>3.0</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) |
| 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

SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE

<table>
<thead>
<tr>
<th>REQUIRED MAJOR UNITS</th>
<th>9.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESTRICTED MAJOR UNITS</td>
<td>9.0</td>
</tr>
<tr>
<td>ELECTIVE UNITS</td>
<td>21.0</td>
</tr>
<tr>
<td>REQUIRED GENERAL EDUCATION UNITS</td>
<td>21.0</td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
<td>60.0</td>
</tr>
</tbody>
</table>

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.
BIOLOGY—ASSOCIATE OF SCIENCE DEGREE

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.

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>
</tr>
<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-1B</td>
<td>General Chemistry</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PHY-2A/2B or PHY-4A/4B/4C</td>
<td>College Physics</td>
<td>3.0</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>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, and 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>
</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>CHM-1A</td>
<td>General Chemistry</td>
<td>5.0</td>
</tr>
</tbody>
</table>

| SOCIAL & BEHAVIORAL SCIENCES (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS) | |
|---|-------------------------------------------------|-----------------|-------|
| Humanities (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS) | |
| ETHNIC GROUPS IN THE UNITED STATES (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS) | |
| Language and Rationality (9 Units) | |
| A. Written Composition | ENG-1A | College Composition and Reading | 3.0 |
| B. Communication and Analytical Thinking | MAT-13P | Elementary Statistics | 5.0 |
| Communication and Analytical Thinking | MAT-25P | Pre-Calculus | 4.0 |

| SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE | |
|---------------------------------------------------|-----------------|-------|
| REQUIRED MAJOR UNITS                              | 28.0            | |
| ELECTIVE UNITS                                    | 6.0             | |
| REQUIRED GENERAL EDUCATION UNITS                  | 26.0            | |
| DEGREE 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.asiist.org. Please consult with a Hartnell College counselor to review transfer requirements.
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 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.

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/CSS-109</td>
<td>Introduction to PC Applications</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS-128</td>
<td>Professionalism in the Workplace</td>
<td>2.0</td>
</tr>
<tr>
<td>BUS-129</td>
<td>Practical Customer Service Skills</td>
<td>2.0</td>
</tr>
<tr>
<td>BUS-131</td>
<td>Business English</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS-172</td>
<td>Machine Calculations on the Microcomputer</td>
<td>1.0</td>
</tr>
<tr>
<td>BUS-173</td>
<td>Filing Procedures and Records Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS-190</td>
<td>Professional Development and Career Management</td>
<td>2.0</td>
</tr>
<tr>
<td>BUS-194</td>
<td>Human Relations in Business</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (20.0)**

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

### REQUIRED MAJOR COURSES (ACCOUNTING EMPHASIS)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS-110 or BUS-110A and BUS-110B</td>
<td>Beginning Keyboarding and Document Formatting</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS-150.25</td>
<td>Electronic Spreadsheets</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS-152</td>
<td>Introduction to Accounting</td>
<td>4.0</td>
</tr>
<tr>
<td>BUS-154</td>
<td>Computerized Accounting—Quickbooks</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (13.0)**

### REQUIRED MAJOR COURSES (INFORMATION PROCESSING EMPHASIS)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS-111</td>
<td>Intermediate Office Skills</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS-140A &amp; B</td>
<td>Keyboarding Speed and Accuracy</td>
<td>1.0</td>
</tr>
<tr>
<td>BUS-150.15</td>
<td>Word Processing</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS-175</td>
<td>Business Communications</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS-177</td>
<td>Proofreading and Editing Skills</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (13.0)**

### RECOMMENDED MAJOR ELECTIVES (Select from list; none required)

<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>1.0-3.0</td>
</tr>
<tr>
<td>BUS-32</td>
<td>Introduction to Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS-151</td>
<td>Business Mathematics</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (Count with Electives)**

### 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>

**SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE**

**REQUIRED GENERAL EDUCATION REQUIREMENTS**

- **REQUIRED GENERAL EDUCATION UNITS 21.0**
- **REQUIRED MAJOR UNITS EMPHASIS 13.0**
- **ELECTIVE UNITS 6.0**
- **TOTAL UNITS (60.0)**
- **DEGREE TOTAL UNITS 60.0**

available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.

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 institution.

Additional information is available online at www.assist.org.
**CON’T OF**

**BUSINESS OFFICE TECHNOLOGY—ACCOUNTING EMPHASIS—ASSOCIATE OF SCIENCE DEGREE (Pending Chancellor’s Office Approval)**

**BUSINESS OFFICE TECHNOLOGY—INFORMATION PROCESSING EMPHASIS—ASSOCIATE OF SCIENCE DEGREE**

<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>
<tr>
<td>Communication and Analytical Thinking</td>
<td>BUS-5/SPE-5#</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

<table>
<thead>
<tr>
<th>SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED MAJOR UNITS</td>
<td>20.0</td>
</tr>
<tr>
<td>REQUIRED MAJOR UNITS EMPHASIS</td>
<td>13.0</td>
</tr>
<tr>
<td>ELECTIVE UNITS</td>
<td>6.0</td>
</tr>
<tr>
<td>REQUIRED GENERAL EDUCATION UNITS</td>
<td>21.0</td>
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<tr>
<td>DEGREE TOTAL UNITS</td>
<td>60.0</td>
</tr>
</tbody>
</table>

**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—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-157</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>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-151**</td>
<td>Business Mathematics</td>
<td>(3.0)</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.

<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-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>
<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-140A &amp; B</td>
<td>Keyboarding Speed and Accuracy</td>
<td>1.0</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-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)</td>
</tr>
<tr>
<td>Required Major Course</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.
### BUSINESS ADMINISTRATION—ASSOCIATE OF SCIENCE DEGREE

The Business Administration program prepares students with the lower-division coursework required at most universities for advancement to upper-division coursework for the Bachelor Degree with a major in Business Administration.

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-1A</td>
<td>Accounting Principles—Financial</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-1B</td>
<td>Accounting Principles—Financial/Management</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>BUS-18</td>
<td>Legal Environment of Business</td>
<td>3.0</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>
<tr>
<td>Required Major Course</td>
<td>ECO-5</td>
<td>Principles of Economics—Micro</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**RECOMMENDED MAJOR ELECTIVES (Select from list; none required)**

<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></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>

**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>
<tr>
<td>Elective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></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>ECO-1</td>
<td>Principles of Economics—Macro</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-13</td>
<td>Elementary Statistics</td>
<td>5.0</td>
</tr>
<tr>
<td>BUS/SPE-5</td>
<td>Introduction to Organizational Communication</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE**

- REQUIRED MAJOR UNITS: 21.0
- ELECTIVE UNITS: 16.0
- REQUIRED GENERAL EDUCATION UNITS: 23.0
- DEGREE 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.
CHEMISTRY—ASSOCIATE OF SCIENCE DEGREE

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 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 no prior chemistry or one whose background is weak. The entire program is taught with a strong emphasis on the laboratory 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.

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-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>PHY-2A &amp; PHY-2B</td>
<td>College Physics I &amp; College Physics II</td>
<td>8.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>PHY-4A &amp; PHY-4B</td>
<td>General Physics/Electricity and Magnetism</td>
<td>8.0</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>MAT-3C</td>
<td>Analytic Geometry and Calculus III</td>
<td>4.0</td>
</tr>
<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>

<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>
<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>CHM-1A</td>
<td>General Chemistry I</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>

<table>
<thead>
<tr>
<th>TOTAL UNITS (≥ 3.0)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED MAJOR UNITS</td>
</tr>
<tr>
<td>ELECTIVE UNITS</td>
</tr>
<tr>
<td>REQUIRED GENERAL EDUCATION UNITS</td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
</tr>
</tbody>
</table>

TRANSFER STUDENTS
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### CHICANA/CHICANO STUDIES—ASSOCIATE OF ARTS DEGREE

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.

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-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>ETH-4</td>
<td>Chicano Culture</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (9.0)**

**CHOSE A SINGLE AREA OF EMPHASIS: Complete 3.0 units in each 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>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-6</td>
<td>La Chicana</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (≥ 3.0)**

<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-26</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)**

<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></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 (≥ 24.0)**

<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 (≥ 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

### SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE

<table>
<thead>
<tr>
<th>Category</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED MAJOR UNITS</td>
<td>9.0</td>
</tr>
<tr>
<td>RESTRICTED MAJOR UNITS IN ONE AREA OF EMPHASIS</td>
<td>6.0</td>
</tr>
<tr>
<td>ELECTIVE UNITS</td>
<td>24.0</td>
</tr>
<tr>
<td>REQUIRED GENERAL EDUCATION UNITS</td>
<td>21.0</td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
<td>60.0</td>
</tr>
</tbody>
</table>

**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)

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.

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-5</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>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
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<td>Elective</td>
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<td>Elective</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>
</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>ENG-1A</td>
<td>College Reading and Composition</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>MAT-123</td>
<td>Intermediate Algebra</td>
<td>5.0</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></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</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

**SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE**

- **REQUIRED MAJOR UNITS**: 12.0
- **RESTRICTED MAJOR ELECTIVE UNITS**: 9.0
- **ELECTIVE UNITS**: 18.0
- **REQUIRED GENERAL EDUCATION UNITS**: 21.0

**DEGREE 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.
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 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 programs are designed to provide students with the skills necessary for employment in the information systems and computer science
industry.

As a result of ongoing changes in technology, the need to expand competencies, and changing transfer requirements, certificate and degree requirements may also change.

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</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>CSS-2A</td>
<td>Object Oriented Programming</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>CSS-2B</td>
<td>Data Structures and Algorithms</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>CSS-6</td>
<td>Programming in Visual Basic</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>CSS-41</td>
<td>Operating Systems</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>CSS-43</td>
<td>Computer Systems and Information Literacy</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>CSS-126A</td>
<td>Networking Fundamentals</td>
<td>4.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RESTRICTED MAJOR ELECTIVES</th>
<th>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></td>
<td></td>
<td>CSS-29</td>
<td>Programming for Multimedia</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CSS-31</td>
<td>Database Management</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CSS-60A</td>
<td>2-D Game Development</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CSS-60B</td>
<td>3-D Game Development</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CSS-122</td>
<td>Computer Security Principles</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CSS-123</td>
<td>Network Security Principles</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CSS-126</td>
<td>Dreamweaver</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MAT-3B</td>
<td>Analytic Geometry and Calculus II</td>
<td>4.0</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>ENG-JA</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>
<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 Rationale (9 Units)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUBTOTAL UNITS (32.0)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED MAJOR UNITS</td>
</tr>
<tr>
<td>RESTRICTED MAJOR ELECTIVE UNITS</td>
</tr>
<tr>
<td>REQUIRED GENERAL EDUCATION UNITS</td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
</tr>
</tbody>
</table>

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—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-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-6</td>
<td>Programming in Visual Basic</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-121A</td>
<td>Networking Fundamentals</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>MAT-123**</td>
<td>Intermediate Algebra</td>
<td>(5.0)</td>
</tr>
</tbody>
</table>

**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 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 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 programs are designed to provide students with the skills necessary for employment in the information systems and computer science industry.

This certificate or degree program is designed for those interested in designing effective and persuasive presentations, to include web page and educational products. This option emphasizes the following competencies: managing the development and delivery of comprehensive, integrated digital media presentations to a defined budget 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 on how best to complete the program in which you are enrolled.

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.

**COMPUTER SCIENCE AND INFORMATION SYSTEMS—DIGITAL AND WEB DESIGN OPTION—ASSOCIATE OF SCIENCE DEGREE**

<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-25</td>
<td>Multimedia Integration</td>
<td>3.0</td>
</tr>
<tr>
<td>CSS-27</td>
<td>Digital Project Management and Content</td>
<td>4.0</td>
</tr>
<tr>
<td>CSS-29</td>
<td>Programming for Multimedia</td>
<td>3.0</td>
</tr>
<tr>
<td>CSS-31</td>
<td>Database Management</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-126</td>
<td>Dreamweaver</td>
<td>4.0</td>
</tr>
<tr>
<td>CSS-127</td>
<td>Flash</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**RESTRICTED MAJOR ELECTIVES (Select a minimum of 12.0 units from the following)**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSS-6</td>
<td>Programming in Visual Basic</td>
<td>4.0</td>
</tr>
<tr>
<td>CSS-60A</td>
<td>2-D Game Development</td>
<td>4.0</td>
</tr>
<tr>
<td>CSS-60B</td>
<td>3-D Game Development</td>
<td>4.0</td>
</tr>
<tr>
<td>CSS-78</td>
<td>Beginning Flash Game Design and Programming</td>
<td>4.0</td>
</tr>
<tr>
<td>CSS-84</td>
<td>Beginning Digital Cartooning in Flash</td>
<td>4.0</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>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 (≥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**

**SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE**

<table>
<thead>
<tr>
<th>Required Major Units</th>
<th>30.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective Units</td>
<td>12.0</td>
</tr>
<tr>
<td>Required General Education Units</td>
<td>21.0</td>
</tr>
<tr>
<td>Degree Total Units</td>
<td>63.0</td>
</tr>
</tbody>
</table>

**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—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-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>
</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>Required Major Course</td>
<td>MAT-123**</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Restricted 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-31</td>
<td>Database Management</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-84</td>
<td>Beginning Digital Cartooning in Flash</td>
<td>4.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subtotal Units (≥12.0 units)</th>
<th>8.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL UNITS (≥24.0 units)</td>
<td>8.0</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

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 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 programs are designed to provide students with the skills necessary for employment in the information systems and computer science industry.

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 on how best to complete the program in which you are enrolled.

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>
<tr>
<td>Required Major Course</td>
<td>CSS-121C</td>
<td>Fundamentals of LAN/WAN Systems</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>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>

<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-122</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>

<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>ENG-1A</td>
<td>College Composition and Reading</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>MAT-122*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
<tr>
<td>Humanities (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td>MAT-122*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
<tr>
<td>Ethnic Groups in the United States (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td>MAT-122*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
<td>MAT-122*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUBTOTAL UNITS (≥ 21.0)</th>
<th>TOTAL UNITS (≥ 60.0)</th>
</tr>
</thead>
</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 examination fulfills this requirement.

**These courses are also Required Major Courses

<table>
<thead>
<tr>
<th>SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE</th>
<th>REQUIRED MAJOR UNITS (≥ 28.0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELECTIVE UNITS</td>
<td>11.0</td>
</tr>
<tr>
<td>REQUIRED GENERAL EDUCATION UNITS</td>
<td>21.0</td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
<td>60.0</td>
</tr>
</tbody>
</table>

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—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>✔ 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>MAT 201**</td>
<td>Prealgebra</td>
<td>(3.0)</td>
</tr>
</tbody>
</table>

<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>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>

<table>
<thead>
<tr>
<th>✔ REQUIRED GENERAL EDUCATION REQUIREMENTS</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>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-41</td>
<td>Operating Systems</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-43</td>
<td>Computer Systems and Information Literacy</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-169</td>
<td>Computer Maintenance and Repair</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-121A</td>
<td>Networking Fundamentals</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-121B</td>
<td>Network Management – Hardware</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-122</td>
<td>Computer Security Principles</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>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT 201**</td>
<td>Prealgebra</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>✔ REQUIRED GENERAL EDUCATION REQUIREMENTS</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>CSS-31</td>
<td>Database Management</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-121C</td>
<td>Fundamentals of LAN WAN Systems</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-123</td>
<td>Network Security Principles</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-126</td>
<td>Dreamweaver</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ELE-55</td>
<td>Introduction to Digital Electronics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>✔ REQUIRED GENERAL EDUCATION REQUIREMENTS</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>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-41</td>
<td>Operating Systems</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-43</td>
<td>Computer Systems and Information Literacy</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-169</td>
<td>Computer Maintenance and Repair</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-121A</td>
<td>Networking Fundamentals</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-121B</td>
<td>Network Management – Hardware</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CSS-122</td>
<td>Computer Security Principles</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>
</tr>
<tr>
<td>Required Major Course</td>
<td>MAT 201**</td>
<td>Prealgebra</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.
CONSTRUCTION—CONSTRUCTION MANAGEMENT—ASSOCIATE OF SCIENCE DEGREE

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.

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>
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<tr>
<td>Required Major Course</td>
<td>CON-62</td>
<td>Construction Law and Codes</td>
<td>3.0</td>
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<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>
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<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>
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<tr>
<td>Required Major Course</td>
<td>BUS-152</td>
<td>Introduction to Accounting</td>
<td>4.0</td>
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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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<td>Elective</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
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SUBTOTAL UNITS (≥2.0)

<table>
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<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-121*</td>
<td>Intermediate Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>Humanities</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>Hispanic Groups in the United States</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
<tr>
<td>Communication and Analytical Thinking (Select a minimum of 1 unit from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td>ENG-1A</td>
<td>College Composition and Reading</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

SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE

<table>
<thead>
<tr>
<th>REQUIRED MAJOR UNITS</th>
<th>34.0</th>
</tr>
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<tbody>
<tr>
<td>RESTRICTED MAJOR UNITS</td>
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<tr>
<td>ELECTIVES</td>
<td>2.0</td>
</tr>
<tr>
<td>REQUIRED GENERAL EDUCATION UNITS</td>
<td>21.0</td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
<td>60.0</td>
</tr>
</tbody>
</table>

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.
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 CON-50A and CON-50B and CON-50C</td>
<td>Residential Construction: Rough Frame or Residential Construction: Building Layout and Residential Construction: Wall &amp; Stair and Residential Construction: Roof Frame</td>
<td>6.0</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* 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-151**</td>
<td>Technical Mathematics</td>
<td>(3.0)</td>
</tr>
</tbody>
</table>

SUBTOTAL 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.
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>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></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 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>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-54</td>
<td>Concrete Construction</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CON-55</td>
<td>Masonry Construction</td>
<td>3.0</td>
</tr>
<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>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.
### DIGITAL ARTS—ASSOCIATE OF ARTS DEGREE

The Digital Arts program offers 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 in business, education, entertainment, telecommunication and medical industries.

Positions for which BA graduates in Digital Arts are qualified include graphic designer, multimedia artist, web designer, 2D illustrator, digital photographic imaging, audio engineering, video editor, digital videographer, or digital media interface designer.

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 faculty or a counselor on how to best complete the program in which you enrolled. The digital arts faculty will provide you with an up to date curriculum plan and schedule.

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>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART/CSS-70</td>
<td>Graphic Design/Computer Graphics</td>
<td>3.0</td>
</tr>
<tr>
<td>ART-73</td>
<td>Introduction to Digital Illustration for Animation</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-72</td>
<td>Introduction to Digital Arts</td>
<td>3.0</td>
</tr>
<tr>
<td>ART/CSS-77</td>
<td>Digital Video &amp; Audio Editing and Production</td>
<td>3.0</td>
</tr>
<tr>
<td>ART/CSS-75</td>
<td>3D Modeling for Digital Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>ART/CSS-85</td>
<td>Interactive Digital Media Interface Design</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>ART/CSS-76</td>
<td>3D Digital Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>ART-3</td>
<td>Drawing and Composition</td>
<td>3.0</td>
</tr>
<tr>
<td>PHO-1</td>
<td>Introduction to Photography</td>
<td>3.0</td>
</tr>
<tr>
<td>ART-12A</td>
<td>Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ART/CSS-87</td>
<td>Web Authoring</td>
<td>3.0</td>
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<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>
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<tr>
<td>MAT-123**</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
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</table>

### REQUIRED MAJOR COURSES

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
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<thead>
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<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>
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<tbody>
<tr>
<td>ART/CSS-76</td>
<td>3D Digital Animation</td>
<td>3.0</td>
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<tr>
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<td>Design</td>
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<td>Web Authoring</td>
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<tr>
<th>Course No.</th>
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</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>

### RESTRICTED MAJOR ELECTIVES (Select 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>ART/CSS-85</td>
<td>Interactive Digital Media Interface Design</td>
<td>3.0</td>
</tr>
<tr>
<td>ART/CSS-77</td>
<td>Digital Video &amp; Audio Editing and Production</td>
<td>3.0</td>
</tr>
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<td>ART/CSS-85</td>
<td>Interactive Digital Media Interface Design</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>
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<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></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>3.0</td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences (Select one course from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>Humanities (Select one course from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td>ART-71</td>
<td>Introduction to 2D Digital Illustration</td>
</tr>
<tr>
<td>Ethnic Groups in the United States (Select one course from catalog GENERAL EDUCATION REQUIREMENTS)</td>
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</tr>
</tbody>
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### SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE

<table>
<thead>
<tr>
<th>Category</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
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<td>ELECTIVE UNITS</td>
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<tr>
<td>REQUIRED GENERAL EDUCATION UNITS</td>
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<td>DEGREE TOTAL UNITS</td>
<td>60.0</td>
</tr>
</tbody>
</table>

### TRANSFER STUDENTS

Completing the AA 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.
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/CSS-70</td>
<td>Graphic Design/Computer Graphics</td>
<td>3.0</td>
</tr>
<tr>
<td>Required 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>Required Major Course</td>
<td>ART/CSS-75</td>
<td>3D Modeling for Digital Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART/CSS-77</td>
<td>Digital Video &amp; Audio Edition and Production</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART/CSS/PHO-80</td>
<td>Digital Photographic Imaging</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART/CSS-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>

**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.

*Eligibility for ENG-1A fulfills this requirement.

SUMMARY OF UNITS REQUIRED FOR ASSOCIATE'S DEGREE

- REQUIRED MAJOR UNITS 9.0
- RESTRICTED MAJOR UNITS 9.0
- REQUIRED MAJOR UNITS 21.0
- ELECTIVE UNITS 9.0
- TOTAL UNITS (234.0)
DIGITAL ARTS—ANIMATION SPECIALIST—ASSOCIATE OF ARTS DEGREE

The Digital Arts program offers 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 in business, education, entertainment, telecommunication and medical industries.

Positions for which BA graduates in Digital Arts with animation specialization are qualified include 3D digital artist, game design, storyboard artist, background artist, 3D modeler: character creation, digital 3D broadcast logo design artist, digital 3D volumetric environment design artist, 3D animator and compositor, 3D layout artist, 2D digital artist, 2D compositor, 2D chroma key artist, 2D texture painter, or rotoscoping.

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 faculty or a counselor on how to best complete the program in which you enrolled. The digital arts faculty will provide you with an up to date curriculum plan and schedule.

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-72</td>
<td>Introduction to 2D Digital Illustration</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART/CSS-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/CSS/PHO-80</td>
<td>Digital Photographic Imaging</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART/CSS-77</td>
<td>Digital Video &amp; Audio Editing and Production</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART/CSS-85</td>
<td>Interactive Digital Media Interface Design</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART-3</td>
<td>Drawing and Composition</td>
<td>3.0</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>RESTRICTED MAJOR ELECTIVES (Select a minimum of 9 units from the following)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restricted Major Elective ART/CSS-70</td>
<td>Graphic Design/ Computer Graphics</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Restricted Major Elective PHO-1</td>
<td>Introduction to Photography</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Restricted Major Elective ART-12A</td>
<td>Design</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Restricted Major Elective ART/CSS-87</td>
<td>Web Authoring</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>Restricted Major Elective ART-72</td>
<td>Introduction to Digital Arts</td>
<td>3.0</td>
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</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>
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<tr>
<td>Elective</td>
<td></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>
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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>
<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>ART-73³</td>
<td>Introduction to Digital Illustration for Animation</td>
<td>3.0</td>
</tr>
<tr>
<td>Language and Rationality (8 Units)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Written Composition ENG-1A</td>
<td>College Reading and Composition</td>
<td>3.0</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>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED MAJOR UNITS</td>
<td>21.0</td>
<td></td>
</tr>
<tr>
<td>RESTRICTED MAJOR UNITS</td>
<td>9.0</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE UNITS</td>
<td>9.0</td>
<td></td>
</tr>
<tr>
<td>REQUIRED GENERAL EDUCATION UNITS (May include Required Major Courses that meet GE requirements)</td>
<td>21.0</td>
<td></td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
<td>60.0</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

⁴ These courses are also Required Major Courses

TRANSFER STUDENTS

Completing the AA 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.aassist.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/CSS-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/CSS-77</td>
<td>Digital Video &amp; Audio Edition and Production</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART/CSS/PHO-80</td>
<td>Digital Photographic Imaging</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART/CSS-86</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>

**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.

<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-70 or CSS-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>ART-87 or CSS-87</td>
<td>Web Authority</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>

**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.

<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-70 or CSS-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>ART-87 or CSS-87</td>
<td>Web Authority</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>

**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.

<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-72</td>
<td>Introduction to Digital Arts</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ART-87 or CSS-87</td>
<td>Web Authority</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>

**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.
The ECE program offers a comprehensive program on skills, knowledge, and dispositions 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; educational programs for preschoolers, parents of young children, school-age children, and children with special needs; as well as other ECE related-programs in the community.

The Early Childhood Education curriculum provides coursework with specializations in administration of ECE programs, infant/toddler development and care, and special needs so that 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.

A minimum of 60.0 semester units with a grade of “C” or better must be maintained in all certificate-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>3.0</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>
</tbody>
</table>

SUBTOTAL UNITS (19.0)

<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>
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</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>ECE-21</td>
<td>Infant/Toddler: 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>
</tr>
<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-196-199</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>
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<tr>
<td>Restricted Major Elective</td>
<td>ECE-17</td>
<td>Preschool Curriculum: Movement</td>
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</tbody>
</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>Electives</td>
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<td></td>
</tr>
<tr>
<td>Elective</td>
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<td></td>
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</tbody>
</table>

SUBTOTAL UNITS (2.3.0)

<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>Cultural &amp; Behavioral Sciences</td>
<td>FCS-1A</td>
<td>Child Development</td>
<td>3.0</td>
</tr>
<tr>
<td>Humanities</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>
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<td></td>
<td></td>
</tr>
<tr>
<td>Communication and Analytical Thinking</td>
<td>ENG-1A</td>
<td>College Reading and Composition</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>

SUBTOTAL UNITS (2.21.0)

TOTAL UNITS (2.60.0)

*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

* Those students interested in applying for Master Teacher Permit must also complete ECE 71 per permit regulations.
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>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-10</td>
<td>Orientation to ECE</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ECE-12A</td>
<td>Preschool Theory &amp; Pracicum</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ECE-31</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* 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-201**</td>
<td>Prealgebra</td>
<td>(3.0)</td>
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</table>

<table>
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<tr>
<th>REQUIREMENTs</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ECE-10</td>
<td>Orientation to ECE</td>
<td>3.0</td>
</tr>
<tr>
<td>ECE-12A</td>
<td>Preschool Theory &amp; Pracicum</td>
<td>3.0</td>
</tr>
<tr>
<td>ECE-31</td>
<td>Teaching in a Diverse Society</td>
<td>3.0</td>
</tr>
<tr>
<td>FCS-14</td>
<td>Child Development</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

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.

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>GEL-6</td>
<td>History of the Earth</td>
<td>4.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>AST-1</td>
<td>Introduction to Astronomy</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>OCN-1</td>
<td>Oceanography</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>MET-1</td>
<td>Meteorology—Weather and Climate</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>CHM-1A</td>
<td>General Chemistry I</td>
<td>5.0</td>
</tr>
<tr>
<td>Required Major Course</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</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>✓ RECOMMENDED MAJOR ELECTIVES (None required)</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended Major Elective</td>
<td>GEL-25</td>
<td>Environmental Geology</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>GEL-36</td>
<td>California Geology</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>GEL-45</td>
<td>Special Projects</td>
<td>1.0–3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>GEG-1</td>
<td>Introduction to Geography: Physical Elements</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>CHM-1B</td>
<td>General Chemistry II</td>
<td>5.0</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>
</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>
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</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>GEL-1A</td>
<td>Dynamic Earth</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></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 2 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td>MAT-25</td>
<td>Precalculus</td>
<td>4.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>✓ SUMMARIES OF UNITS REQUIRED FOR ASSOCIATE'S DEGREE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED MAJOR UNITS</td>
<td>26.0</td>
</tr>
<tr>
<td>ELECTIVE UNITS</td>
<td>13.0</td>
</tr>
<tr>
<td>REQUIRED GENERAL EDUCATION UNITS (May include Required Major Courses that meet GE requirements)</td>
<td>21.0</td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
<td>60.0</td>
</tr>
</tbody>
</table>

## 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.
ELECTRONICS TECHNOLOGY—ASSOCIATE OF SCIENCE DEGREE

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 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.

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>ELE-52</td>
<td>Electronic Fundamentals</td>
<td>5.0</td>
</tr>
<tr>
<td>ELE-64</td>
<td>Electronic Devices and Circuits</td>
<td>5.0</td>
</tr>
<tr>
<td>ELE-55</td>
<td>Introduction to Digital Electronics</td>
<td>3.0</td>
</tr>
<tr>
<td>ELE-56</td>
<td>Advanced Circuit Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>ELE-57</td>
<td>Instruments and Controls</td>
<td>5.0</td>
</tr>
<tr>
<td>ELE-65</td>
<td>Microcomputer Systems and Interfacing</td>
<td>5.0</td>
</tr>
<tr>
<td>ELE-150</td>
<td>Electronic Fabrication Pracicum</td>
<td>1.0</td>
</tr>
<tr>
<td>ELE-151</td>
<td>DC Circuit Analysis</td>
<td>2.5</td>
</tr>
<tr>
<td>DRA-52</td>
<td>Introduction to AutoCad</td>
<td>2.0</td>
</tr>
</tbody>
</table>

RECOMMENDED MAJOR ELECTIVES (None required)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSS-2A</td>
<td>Object Oriented Program</td>
<td>4.0</td>
</tr>
<tr>
<td>CSS-4</td>
<td>Introduction to Scientific Programming</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-43</td>
<td>Computer Systems and Information Competency</td>
<td>4.0</td>
</tr>
<tr>
<td>CSS-169</td>
<td>Computer Maintenance and Repair</td>
<td>4.0</td>
</tr>
</tbody>
</table>

REQUISITE GENERAL EDUCATION COURSES

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHY-10 or</td>
<td>Introduction to Physics</td>
<td>4.0</td>
</tr>
<tr>
<td>PHY-2A</td>
<td>College Physics I</td>
<td></td>
</tr>
<tr>
<td>DRA-52</td>
<td>Introduction to AutoCad</td>
<td>2.0</td>
</tr>
</tbody>
</table>

TOTAL UNITS (31.5)

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>
<tr>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
<td>5.0</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>PHY-10 or</td>
<td>Introduction to Physics</td>
<td>4.0</td>
</tr>
<tr>
<td>PHY-2A</td>
<td>College Physics I</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL UNITS (21.0)

SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE

<table>
<thead>
<tr>
<th>REQUIRED MAJOR UNITS</th>
<th>31.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED ELECTIVE UNITS</td>
<td>4.0</td>
</tr>
<tr>
<td>REQUIRED GENERAL EDUCATION UNITS</td>
<td>22.0</td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
<td>60.0</td>
</tr>
</tbody>
</table>

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><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>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 Elective</td>
<td>MAT-121**</td>
<td>Elementary Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>RECOMMENDED MAJOR ELECTIVES (Select from list; none required)</strong></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>

**SUBTOTAL UNITS (≥ 35.5)**

*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.*
ELEME NTA Y TEACHER P REPARAT I ON—ASSOCIATE OF ARTS DEGREE (Formerly Liberal Studies)

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.

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>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>POL-1</td>
<td>American Political Institutions</td>
<td>3.0</td>
</tr>
<tr>
<td>SPE-1A</td>
<td>Essentials of Public Speaking or Introduction to Communication</td>
<td>3.0</td>
</tr>
<tr>
<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>FCS-14</td>
<td>Child Development</td>
<td>3.0</td>
</tr>
<tr>
<td>COU-35 or SPE-35</td>
<td>Intercultural Communication</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS-17A or 17B*</td>
<td>United States History A or B</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-25† or MAT-12†</td>
<td>Pre-calculus or Number Systems</td>
<td>4.0</td>
</tr>
<tr>
<td>PHL-15† or ENG-2†</td>
<td>Critical Thinking or Critical Thinking and Writing</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE**

| REQUIRED DEGREE UNITS | 30.0-35.0 |
| ELECTIVE UNITS | 22.0-27.0 |
| REQUIRED GENERAL EDUCATION UNITS | 3.0 |
| DEGREE TOTAL UNITS | 60.0 |

† These courses can be double-counted for both Required Degree Courses and Required General Education Courses.

Hartnell College Catalog – 2008/09
CON’T OF ELEMENTARY TEACHER PREPARATION—ASSOCIATE OF ARTS DEGREE (Formerly Liberal Studies)

TRANSFER STUDENTS

Completing the AA 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:

FRESNO

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 1A/B, 3, 6A/C, 10, 11A/C, Eng 31/33, Music 1 A/B, 2, or Tha 2A</td>
<td>Area C1 Arts/Humanities course</td>
<td>3.0</td>
</tr>
<tr>
<td>English 1B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Math 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSS 43</td>
<td></td>
<td></td>
</tr>
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</table>

SACRAMENTO

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 1B</td>
<td>College Reading and Composition</td>
<td>3.0</td>
</tr>
<tr>
<td>Math 12</td>
<td>Number systems</td>
<td>3.0</td>
</tr>
<tr>
<td>CSS 43</td>
<td>Introduction to Computers</td>
<td>4.0</td>
</tr>
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</table>

CAL POLY SAN LUIS OBISPO

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Science with lab (2 courses)</td>
<td></td>
<td>8.0</td>
</tr>
<tr>
<td>Life Science with lab (2 courses)</td>
<td></td>
<td>8.0</td>
</tr>
<tr>
<td>Family Studies/Health Ed/Nutrition/Physical Ed (1 course)</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>Math 25</td>
<td>Pre-Calculus</td>
<td>3.0</td>
</tr>
<tr>
<td>Math 13</td>
<td>Statistics</td>
<td>5.0</td>
</tr>
<tr>
<td>Psychology 1A</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>Biology 1, 2, 3, 5, 10, 20, 30, 42, 47, or 48</td>
<td>Life Science with a lab</td>
<td>3.0-5.0</td>
</tr>
<tr>
<td>Chem 1A, 22, 60, Phy 2A, 4A, or 10</td>
<td>Physical Science Course</td>
<td>4.0</td>
</tr>
<tr>
<td>Ast 1, Geog 1, Geol 1, 2, 6, Met 1, Ocn 1</td>
<td>Earth Science</td>
<td>4.0</td>
</tr>
</tbody>
</table>

MONTEREY BAY

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 12 or 25</td>
<td>Number Systems or Pre-Calculus</td>
<td>3.0</td>
</tr>
<tr>
<td>Art 1A/B, 3, 6A, 8, 10, 11A, 12A, 14A, 15A, 20A, or 25</td>
<td>Integrated Art</td>
<td>3.0</td>
</tr>
<tr>
<td>Theater 1, 2A, 3, 5A, 6A, 7A, 10, 11, 12, 14, 30(A/B), 31 (A/B)</td>
<td>Integrated Theater</td>
<td>3.0</td>
</tr>
<tr>
<td>Music 1A, 1B, 1C, 2, 3, 5, 7, 13A, 16, 17A, 20, 22, 27, 50A+51A, 55A, or 55B</td>
<td>Integrated Music</td>
<td>3.0</td>
</tr>
<tr>
<td>Dance 100, 101, 102, 130, 132, or 133</td>
<td>Integrated Dance</td>
<td>3.0</td>
</tr>
<tr>
<td>One of the science classes must contain an underlined lab course</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FRESNO

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 1A/B, 3, 6A/C, 10, 11A/C, Eng 31/33, Music 1 A/B, 2, or Tha 2A</td>
<td>Area C1 Arts/Humanities course</td>
<td>3.0</td>
</tr>
<tr>
<td>English 1B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Math 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSS 43</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SACRAMENTO

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 1B or 2</td>
<td>Critical Thinking Course</td>
<td>3.0</td>
</tr>
<tr>
<td>FCS 14</td>
<td>Child Development</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Hartnell College Catalog – 2008/09
ENGINEERING—ASSOCIATE OF SCIENCE DEGREE

The Engineering program at Hartnell College is the first two years or lower division 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 in the upper division. 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.

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>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-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>
</tr>
</tbody>
</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>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>
</tr>
<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>
</tr>
</tbody>
</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-1A&lt;sup&gt;‡&lt;/sup&gt;</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-3A&lt;sup&gt;‡&lt;/sup&gt;</td>
<td>Analytic Geometry and Calculus I</td>
<td>4.0</td>
</tr>
<tr>
<td>Communication and Analytical Thinking</td>
<td>MAT-3B&lt;sup&gt;‡&lt;/sup&gt;</td>
<td>Analytic Geometry and Calculus II</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (25.0)**

**TOTAL UNITS (60.0)**

<sup>‡</sup> These courses are also Required Major Courses

**SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE**

| REQUIRED MAJOR UNITS | 34.0 |
| RESTRICTED MAJOR ELECTIVES | 3.0 |
| REQUIRED GENERAL EDUCATION UNITS | 25.0 |
| DEGREE TOTAL UNITS | 63.0 |

TRANSFER STUDENTS

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<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRA-50</td>
<td>Introduction to Drafting Technology or</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Engineering Graphics/CAD</td>
<td>4.0</td>
</tr>
<tr>
<td>DRA-52</td>
<td>Introduction to AutoCAD</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA-53</td>
<td>Advanced AutoCAD</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA-54</td>
<td>AutoCAD 3D Modeling</td>
<td>2.0</td>
</tr>
<tr>
<td>DRA-70</td>
<td>Introduction to Architectural Drawing and</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Design</td>
<td></td>
</tr>
<tr>
<td>DRA-71</td>
<td>Computer-Aided Architectural Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA-72</td>
<td>Advanced Computer-Aided Architectural Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA-74</td>
<td>Architectural Print Reading</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**RESTRICTED MAJOR ELECTIVES (Select from list; 12.0 units required)**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRA/CSS-66</td>
<td>Introduction to Geographic Information</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td>Systems (GIS)</td>
<td></td>
</tr>
<tr>
<td>DRA-44</td>
<td>Computer Systems and Information Literacy</td>
<td>4.0</td>
</tr>
<tr>
<td>DRA-56</td>
<td>Computer-Aided Electronics Aided Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA-58</td>
<td>Computer-Aided Mechanical Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA-64</td>
<td>Industrial Print Reading</td>
<td>2.0</td>
</tr>
<tr>
<td>CON-63</td>
<td>Construction Estimating</td>
<td>3.0</td>
</tr>
<tr>
<td>CON 50 A</td>
<td>Residential Construction: Building Layout</td>
<td>2.0</td>
</tr>
<tr>
<td>EGN-1</td>
<td>Introduction to Engineering and Related</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>Technologies</td>
<td></td>
</tr>
<tr>
<td>WLD-150</td>
<td>Basic Welding</td>
<td>2.0</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></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></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>ART-71</td>
<td>Introduction to 2D Digital Illustration</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>or Introduction to Photography</td>
<td>3.0</td>
</tr>
<tr>
<td>PHO-1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Language and Rationality (9 Units)**

<table>
<thead>
<tr>
<th>A. Written Composition</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written Composition</td>
<td>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Communication and Analytical Thinking</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<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</td>
<td>Information Competency in the Sciences and</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Applied Technology</td>
<td></td>
</tr>
</tbody>
</table>

**SUMMARY OF UNITS REQUIRED FOR ASSOCIATE'S DEGREE**

<table>
<thead>
<tr>
<th>REQUIRED MAJOR UNITS</th>
<th>22.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESTRICTED ELECTIVE UNITS</td>
<td>12.0</td>
</tr>
<tr>
<td>ELECTIVES</td>
<td>5.0</td>
</tr>
<tr>
<td>REQUIRED GENERAL EDUCATION UNITS</td>
<td>21.0</td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
<td>60.0</td>
</tr>
</tbody>
</table>

**TRANSFER STUDENTS**

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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</td>
<td>3.0</td>
</tr>
<tr>
<td>or</td>
<td>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-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>or</td>
<td>ESL-101*</td>
<td>Elementary Algebra</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>

**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)

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.

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<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 or</td>
<td>Introduction to Drafting and Design 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-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 Drawing</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>
</tbody>
</table>

<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-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>
</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>
</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>ART-71or</td>
<td>Introduction to 2D Digital Illustration or Introduction to Photography</td>
<td>3.0</td>
</tr>
<tr>
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<td>PHO-1</td>
<td></td>
<td>3.0</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>
<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>

<table>
<thead>
<tr>
<th>SUMMARIZED UNITS REQUIRED FOR ASSOCIATE’S DEGREE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED MAJOR UNITS</td>
<td>19.0</td>
</tr>
<tr>
<td>RESTRICTED ELECTIVE UNITS</td>
<td>12.0</td>
</tr>
<tr>
<td>ELECTIVES</td>
<td>8.0</td>
</tr>
<tr>
<td>REQUIRED GENERAL EDUCATION UNITS</td>
<td>21.0</td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
<td>60.0</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
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<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-54</td>
<td>AutoCAD 3D Modeling</td>
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</tr>
<tr>
<td>Required Major Course</td>
<td>DRA-58</td>
<td>Computer-Aided Mechanical Drafting</td>
<td>3.0</td>
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<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* 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>
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</table>

SUBTOTAL UNITS (≥ 22.0)

<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>
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<tbody>
<tr>
<td>Recommended Major Elective</td>
<td>DRA-56</td>
<td>Computer-Aided Electronic Drawing</td>
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<tr>
<td>Recommended Major Elective</td>
<td>DRA/CSS-62</td>
<td>Introduction to Geographic Information Systems (GIS)</td>
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<tr>
<td>Recommended Major Elective</td>
<td>WLD-150</td>
<td>Basic Welding</td>
<td>2.0</td>
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<tr>
<td>Recommended Major Elective</td>
<td>ELE-52</td>
<td>Electronic Fundamentals</td>
<td>5.0</td>
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<tr>
<td>Recommended Major Elective</td>
<td>MEC-55</td>
<td>Applied Industrial Mechanics</td>
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</table>

SUBTOTAL UNITS (≥ 19.0)

TOTAL UNITS (≥ 22.0)

*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.
ENGLISH—ASSOCIATE OF ARTS DEGREE

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.

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>
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<tbody>
<tr>
<td>ENG-1B</td>
<td>College Literature and Composition</td>
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</tr>
<tr>
<td>ENG-10</td>
<td>Introduction to Linguistics</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>
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<tr>
<td>ENG-32</td>
<td>Intermediate Creative Writing/Introduction to Magazine Publishing</td>
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<tr>
<td>ENG-33</td>
<td>Advanced Creative Writing/Magazine Publishing and Editing</td>
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<tr>
<td>ENG-41</td>
<td>Art of Steinbeck</td>
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<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

**SUMMARY OF UNITS REQUIRED FOR ASSOCIATE'S DEGREE**

- REQUIRED MAJOR UNITS: 3.0
- RESTRICTED MAJOR UNITS: 12.0
- ELECTIVE UNITS: 18.0
- REQUIRED GENERAL EDUCATION UNITS: 21.0
- DEGREE 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.
GENERAL STUDIES WITH AN AREA OF EMPHASIS—ASSOCIATE OF ARTS DEGREE

The General Studies with an Area of Emphasis program 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). These students are not intending to pursue a specific occupational major, nor are they necessarily planning to transfer. However, careful educational planning with a counselor will help to ensure that if a student did decide at a later date to transfer to a university, they would have a solid beginning in the transfer planning process.

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>
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</thead>
<tbody>
<tr>
<td>Agriculture: AGR 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>
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<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>
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</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.

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>
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<tbody>
<tr>
<td>Administrative Justice: ADJ 1, 51</td>
</tr>
<tr>
<td>Agriculture: AGR 53</td>
</tr>
<tr>
<td>Anthropology: ANT 1, 2, 3, 10, 15, 20</td>
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<tr>
<td>Business: BUS 32</td>
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<tr>
<td>Counseling: COU 35</td>
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<tr>
<td>Economics: ECO 1, 5</td>
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<tr>
<td>Ethnic Studies: ETH 1, 2, 3, 4, 6, 12, 25</td>
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<tr>
<td>Family Consumer Science: FCS 14</td>
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<tr>
<td>Geography: GEG 1, 2, 10</td>
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<tr>
<td>Health Education: HED 2</td>
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<tr>
<td>History: HIS 4A, 4B, 5A, 5B, 6, 10, 17A, 17B, 40, 46A, 46B, 47, 48, 49A, 49B, 51</td>
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<tr>
<td>Philosophy: PHL 2, 6, 8, 10, 15</td>
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<tr>
<td>Political Science: POL 1, 2, 3</td>
</tr>
<tr>
<td>Psychology: PSY 1A, 1B, 14, 15, 22, 33, 36, 41</td>
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<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

### 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.
CON’T OF GENERAL STUDIES WITH AN AREA OF EMPHASIS—ASSOCIATE OF ARTS DEGREE

✓ REQUIRED DEGREE COURSES

Anthropology: ANT 2, 3, 20
Art: ART 1A, 1B, 3, 10, 12A, 15A, 15B, 73
Counseling: COU 80, 81, 83
English: ENG 1B, 10, 17, 22, 24, 25, 26, 31, 32, 33, 41, 44A, 44B, 47A, 47B, 50, 51
Ethnic Studies: ETH 6, 12
French: FRN 1, 2, 3, 4
History: HIS 47, 48, 51
Japanese: JPN 10, 11
Music: 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, 42.1, 42.2, 42.3, 42.4, 50A, 50B, 52A, 52B,
Philosophy: PHL 2, 6, 8, 10
Photography: PHO 1, 2, 4
Spanish: SPA 1, 1S, 1X, 2, 2S, 2X, 3, 3S, 4, 4S, 35
Speech: SPE 18
Theatre: THA-1, 3, 18, 110A, 122, 123, 142, 170, 172, 174, 180, 182, 190, 192

Elective Units 21.0

Required Degree Courses

Anthropology: ANT 10, 15
Counseling: COU 23
Education: EDU 1
English: ENGL 1A Multicultural Perspective, ENGL 1B Multicultural Perspective, 25, 26,
Ethnic Studies: ETH 1, 2, 3, 6, 12, 25
Health Education: HED 6
Health Services: HES 30
History: HIS 10, 46A, 46B, 48, 49A, 49B
Music: MUS 5, 6, 7
Sociology: SOC 42
Speech: SPE 35

Language and Rationality 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.
## CON’T OF GENERAL STUDIES WITH AN AREA OF EMPHASIS—ASSOCIATE OF ARTS DEGREE

<table>
<thead>
<tr>
<th>✓</th>
<th>ELECTIVES (Courses Numbered 1-199)</th>
<th>Course #</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
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**Elective Units**  
21.0

<table>
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<tr>
<th>✓</th>
<th>REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course #</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Natural Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Social &amp; Behavioral Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
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<td>Humanities (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
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<tr>
<td></td>
<td>Ethnic Groups in the United States (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
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</tbody>
</table>

**Language and Rationality (9 Units)**

- A. Written Composition  
  - Course: ENG-1A  
  - Course Title: College Composition and Reading  
  - Units: 3.0

- B. Communication and Analytical Thinking  
  - Course: MAT-123*  
  - Course Title: College Composition and Reading  
  - Units: 5.0

**Communication and Analytical Thinking**

- Communication and Analytical Thinking  
  - Course: MAT-123*  
  - Course Title: College Composition and Reading  
  - Units: 1.0

**GE 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*

### SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE

<table>
<thead>
<tr>
<th>REQUIRED GENERAL EDUCATION UNITS</th>
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</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED DEGREE (AREA OF EMPHASIS) UNITS</td>
<td>18.0</td>
</tr>
<tr>
<td>ELECTIVE UNITS</td>
<td>21.0</td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
<td>60.0</td>
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</table>

### TRANSFER STUDENTS

Completing the AA degree does not meet all the requirements for transfer. Students planning to transfer to a university should follow requirements of the four-year university. Information on course equivalencies and major preparation requirements for University of California (UC) and California State University (CSU) is available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
HISTORY—ASSOCIATE OF ARTS DEGREE

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, pre-theology/(clergy, writing, foreign service, consultant, teacher, historian, archivist, research, market researcher, museum curator, travel, and communications.

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-17A or HIS-21</td>
<td>United States History A or Social and Political Histories of the US</td>
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</tr>
<tr>
<td>Required Major Course</td>
<td>HIS-17B</td>
<td>United States History B</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>HIS-5A</td>
<td>World History A</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>HIS-5B</td>
<td>World History B</td>
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<table>
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<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>Restricted Major Elective</td>
<td>HIS-49A</td>
<td>Chicano History A</td>
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</tr>
<tr>
<td>Restricted Major Elective</td>
<td>HIS-49B</td>
<td>Chicano History B</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>HIS-46A</td>
<td>Race and Ethnicity in American History A</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>HIS-46B</td>
<td>Race and Ethnicity in American History B</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>HIS-40</td>
<td>History of Women in the US</td>
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<tr>
<td>Restricted Major Elective</td>
<td>HIS-8</td>
<td>History of Mexico</td>
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<tr>
<td>Restricted Major Elective</td>
<td>HIS-4A</td>
<td>Western Civilization A</td>
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</tr>
<tr>
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<td>HIS-4B</td>
<td>Western Civilization B</td>
<td>3.0</td>
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<tr>
<td>Restricted Major Elective</td>
<td>HIS-10</td>
<td>History of California</td>
<td>3.0</td>
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<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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<tbody>
<tr>
<td>Recommended Major Elective</td>
<td>ETH-1</td>
<td>Introduction to Ethnic Studies</td>
<td>3.0</td>
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<tr>
<td>Recommended Major Elective</td>
<td>MAT-13</td>
<td>Elementary Statistics</td>
<td>5.0</td>
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<td>Recommended Major Elective</td>
<td>SPE-1A</td>
<td>Essentials of Public Speaking</td>
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</tr>
<tr>
<td>Recommended Major Elective</td>
<td>ANT-2</td>
<td>Introduction to Anthropology, Cultural</td>
<td>3.0</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>
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<tbody>
<tr>
<td>Elective</td>
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<table>
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<tr>
<th>REQUIRED GENERAL EDUCATION COURSES</th>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>Natural Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
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<tr>
<td>Social &amp; Behavioral Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
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<tr>
<td>Humanities (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
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<tr>
<td>Ethnic Groups in the United States (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
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</tr>
<tr>
<td>Language and Rationality (9 Units)</td>
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</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>

<table>
<thead>
<tr>
<th>SUMMARIZE OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED MAJOR UNITS</td>
<td>12.0 or 13.0</td>
<td></td>
</tr>
<tr>
<td>RESTRICTED ELECTIVE UNITS</td>
<td>6.0</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE UNITS</td>
<td>20.0 or 21.0</td>
<td></td>
</tr>
<tr>
<td>REQUIRED GENERAL EDUCATION UNITS</td>
<td>21.0</td>
<td></td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
<td>60.0</td>
<td></td>
</tr>
</tbody>
</table>

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.
HUMAN SERVICES—ASSOCIATE OF ARTS DEGREE

The Human Services Program curricular content encompasses the various paraprofessional fields included in human services. The traditional fields include community health worker, entry-level positions in human services (system theory and functional perspective) and the judicial system.

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.

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>HUS-1</td>
<td>Intro. to Human Services</td>
<td>3.0</td>
</tr>
<tr>
<td>HUS-2</td>
<td>Intro. to Process Group</td>
<td>3.0</td>
</tr>
<tr>
<td>ETH-1 or</td>
<td>Introduction to Ethnic Studies</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC-42</td>
<td>The Sociology of Minority Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC-1 or</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANT-2</td>
<td>Introduction to Anthropology: Cultural</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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 transfer requirements can be found in the catalog.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS-172</td>
<td>Machine Calculations on the Microcomputer</td>
<td>1.0</td>
</tr>
<tr>
<td>BUS-173</td>
<td>Filing Procedures and Records Management</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS-190</td>
<td>Professional Development and Career Management</td>
<td>2.0</td>
</tr>
<tr>
<td>BUS-194</td>
<td>Human Relations in Business</td>
<td>3.0</td>
</tr>
</tbody>
</table>

The Human Services Program curricular content encompasses the various paraprofessional fields included in human services. The traditional fields include community health worker, entry-level positions in human services (system theory and functional perspective) and the judicial system.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS-111</td>
<td>Intermediate Office Skills</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS-140AB</td>
<td>Keyboarding Speed and Accuracy</td>
<td>1.0</td>
</tr>
<tr>
<td>BUS-150.15</td>
<td>Word Processing</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS-175</td>
<td>Business Communications</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS-177</td>
<td>Proofreading and Editing Skills</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Recommended Major Electives (Select from list; none required)

<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>1.0-3.0</td>
</tr>
<tr>
<td>BUS-32</td>
<td>Introduction to Business</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS-151</td>
<td>Business Mathematics</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Electives

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS-154</td>
<td>Computerized Accounting—Quickbooks</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>BUS-194</td>
<td>Human Relations in Business</td>
<td>3.0</td>
</tr>
</tbody>
</table>

RECOMMENDED MAJOR ELECTIVES (Select from list; none required)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
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<tbody>
<tr>
<td>BUS-194</td>
<td>Human Relations in Business</td>
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</table>

RECOMMENDED 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-123^4</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
<tr>
<td>BUS/SPE-5^4</td>
<td>Introduction to Organizational Communication</td>
<td>3.0</td>
</tr>
</tbody>
</table>

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<td>BUS/SPE-5^4</td>
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<td>3.0</td>
</tr>
</tbody>
</table>
CON’T OF HUMAN SERVICES—ASSOCIATE OF ARTS DEGREE

*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

<table>
<thead>
<tr>
<th>SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED MAJOR UNITS</td>
</tr>
<tr>
<td>REQUIRED MAJOR UNITS EMPHASIS</td>
</tr>
<tr>
<td>ELECTIVE UNITS</td>
</tr>
<tr>
<td>REQUIRED GENERAL EDUCATION UNITS</td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
</tr>
</tbody>
</table>

TRANSFER STUDENTS

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INDUSTRIAL TECHNOLOGY—INDUSTRIAL MECHANICS—ASSOCIATE OF SCIENCE DEGREE

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 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.

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>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 is required.

**These courses are also Required Major Courses**

<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>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>

SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE

<table>
<thead>
<tr>
<th>REQUIRED MAJOR UNITS</th>
<th>27.0</th>
</tr>
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<tbody>
<tr>
<td>RESTRICTED ELECTIVE UNITS</td>
<td>3.0</td>
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<tr>
<td>ELECTIVES</td>
<td>9.0</td>
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<tr>
<td>REQUIRED GENERAL EDUCATION UNITS</td>
<td>21.0</td>
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<tr>
<td>DEGREE TOTAL UNITS</td>
<td>60.0</td>
</tr>
</tbody>
</table>

TRANSFER STUDENTS

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Hartnell College Catalog – 2008/09
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.

<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>
<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>English for Academic Purposes II</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.
## Industrial Technology—Industrial Technician—Associate of Science Degree

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.

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### REQUIRED MAJOR COURSES

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSS-43</td>
<td>Computer Systems and Information Literacy</td>
<td>4.0</td>
</tr>
<tr>
<td>DRA-56</td>
<td>Computer-Aided Electronic Drawing</td>
<td>3.0</td>
</tr>
<tr>
<td>DRA-64</td>
<td>Industrial Print Reading</td>
<td>2.0</td>
</tr>
<tr>
<td>ELE-52</td>
<td>Electronic Fundamentals</td>
<td>5.0</td>
</tr>
<tr>
<td>ELE-57</td>
<td>Instruments and Controls</td>
<td>3.0</td>
</tr>
<tr>
<td>EGN-4</td>
<td>Materials Science</td>
<td>3.0</td>
</tr>
<tr>
<td>MEC-56</td>
<td>Hydraulics &amp; Pneumatics</td>
<td>3.0</td>
</tr>
<tr>
<td>MEC-57</td>
<td>Commercial Refrigeration</td>
<td>3.0</td>
</tr>
<tr>
<td>MEC-59</td>
<td>Industrial Materials &amp; Processes</td>
<td>3.0</td>
</tr>
<tr>
<td>PHY-10</td>
<td>Introduction to Physics</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (32.0)**

### RESTRICTED MAJOR ELECTIVES (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>MEC-54</td>
<td>Mechanical Skills</td>
<td>3.0</td>
</tr>
<tr>
<td>MEC-55</td>
<td>Applied Industrial Mechanics</td>
<td>2.0</td>
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<td>3.0</td>
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<tr>
<td>MEC-60</td>
<td>Small Engine Repair &amp; Maintenance</td>
<td>2.0</td>
</tr>
<tr>
<td>MEC-99</td>
<td>Cooperative Work Experience Education</td>
<td>2.0-4.0</td>
</tr>
<tr>
<td>WLD-150</td>
<td>Basic Welding</td>
<td>2.0</td>
</tr>
<tr>
<td>WLD-151</td>
<td>Gas &amp; TIG Welding</td>
<td>2.0</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>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
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<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SUBTOTAL UNITS (≥ 4.0)**

### 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>
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</tbody>
</table>

**SUBTOTAL UNITS (≥ 21.0)**

**TOTAL UNITS (≥ 60.0)**

### SUMMARY OF UNITS REQUIRED FOR ASSOCIATE'S DEGREE

<table>
<thead>
<tr>
<th>Category</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED MAJOR UNITS</td>
<td>32.0</td>
</tr>
<tr>
<td>RESTRICTED ELECTIVE UNITS</td>
<td>3.0</td>
</tr>
<tr>
<td>ELECTIVES</td>
<td>4.0</td>
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INDUSTRIAL TECHNOLOGY—INDUSTRIAL TECHNICIAN—CERTIFICATE OF ACHIEVEMENT

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<tr>
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<th>Course No.</th>
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<tbody>
<tr>
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</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>
</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-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>
<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-151**</td>
<td>Technical Mathematics</td>
<td>(3.0)</td>
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</table>

SUBTOTAL UNITS (32.0)

<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>MEC-99</td>
<td>Cooperative Work Experience Education</td>
<td>2.0-4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>MEC-54</td>
<td>Mechanical Skills</td>
<td>3.0</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>MEC-60</td>
<td>Small Engine Repair &amp; Maintenance</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>Restricted Major Elective</td>
<td>WLD-151</td>
<td>Gas &amp; TIG Welding</td>
<td>2.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (3.0)

TOTAL UNITS (37.0)

*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.
LIBERAL ARTS WITH AN AREA OF EMPHASIS—ASSOCIATE OF ARTS DEGREE

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.

A minimum of 40.0 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 39 units
   B. Minimum units to meet IGETC certification requirements 34-37 units

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.

CHOSE 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 chosen 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 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, 12A, 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 3A, 5, 8, 18, 35 or COU 35
Theater Arts – THA 19

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, archaeology, 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 1J
Child Development– ECE 2, 12A
Criminal Justice– ADJ 1, 2, 3, 4, 5, 8
Ethnic Studies– ETH 3, 4,
Geography– GEG 2
Mathematics– MAT 13
Psychology– PST 1A
Sociology– SOC 1, 5

Culture and Society Emphasis Units (≥ 18.0)
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.

#### 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.**

<table>
<thead>
<tr>
<th>REQUIRED DEGREE COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art – ART 1A, 1B</td>
</tr>
<tr>
<td>Geography – GEG 2</td>
</tr>
<tr>
<td>History – 17A, 17B, 4A, 4B, 5A, 5B, 10, 40, 46A, 46B, 47</td>
</tr>
<tr>
<td>Philosophy – PHL 6, 6</td>
</tr>
</tbody>
</table>

**History Emphasis Units (≥ 18.0)**

#### Area of Emphasis: Humanilies

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.**

<table>
<thead>
<tr>
<th>REQUIRED DEGREE COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropology – ANT 2, 3</td>
</tr>
<tr>
<td>Art – ART 1A, 1B, 1C, 1D, 3, 12A</td>
</tr>
<tr>
<td>History – 4A, 4B</td>
</tr>
<tr>
<td>Geography – GEG 1, 2</td>
</tr>
<tr>
<td>Philosophy – PHL 2, 15</td>
</tr>
</tbody>
</table>

**Humanilies 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.**

<table>
<thead>
<tr>
<th>REQUIRED DEGREE COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Sign Language – COU-80, 81, 83</td>
</tr>
<tr>
<td>French – FRE 1, 2, 3, 4</td>
</tr>
<tr>
<td>Japanese – JPN 10</td>
</tr>
<tr>
<td>Spanish – SPA 1A, 1B, 2, 3, 4, 15, 2S, 3S, 4S, 35</td>
</tr>
<tr>
<td>Geography – GEG 2</td>
</tr>
</tbody>
</table>

**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.**

<table>
<thead>
<tr>
<th>REQUIRED DEGREE COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music – MUS 1A, 1B, 2, 5, 6, 7, 50A, 50B, 52A, 52B</td>
</tr>
<tr>
<td>Theater Arts – THA 1A, 3, 10, 11, 16, 18</td>
</tr>
</tbody>
</table>

**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.**

<table>
<thead>
<tr>
<th>REQUIRED DEGREE COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philosophy – PHL 2, 6, 8, 10, 15</td>
</tr>
<tr>
<td>History – HIS 4A, 4B, 47</td>
</tr>
<tr>
<td>Mathematics – MAT 13</td>
</tr>
</tbody>
</table>

**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.**

<table>
<thead>
<tr>
<th>REQUIRED DEGREE COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economics – ECO 1,5</td>
</tr>
<tr>
<td>Geography – GEG 2</td>
</tr>
<tr>
<td>History – HIS 4A, 4B, 17A, 17B</td>
</tr>
<tr>
<td>Mathematics – MAT 13</td>
</tr>
<tr>
<td>Political Science – POL 1, 2, 3, 5</td>
</tr>
</tbody>
</table>

**Political Science Emphasis Units (≥ 18.0)**
CON’T OF LIBERAL ARTS WITH AN AREA OF EMPHASIS—ASSOCIATE OF ARTS DEGREE

### 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.**

<table>
<thead>
<tr>
<th>REQUIRED DEGREE COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropology – ANT 2</td>
</tr>
<tr>
<td>Biology – BIO 5, 11</td>
</tr>
<tr>
<td>Mathematics – MAT 13</td>
</tr>
<tr>
<td>Psychology – PSY 1A, 1B, 14, 15, 22, 33</td>
</tr>
<tr>
<td>Sociology – SOC 1, 5, 41, 42</td>
</tr>
</tbody>
</table>

**Psychology Emphasis Units (≥ 18.0)**

### 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>
</tr>
</thead>
<tbody>
<tr>
<td>Administration of Justice – ADJ 1, 2, 3, 51</td>
</tr>
<tr>
<td>Anthropology – ANT 1, 2, 3</td>
</tr>
<tr>
<td>Economics – ECO 1, 5</td>
</tr>
<tr>
<td>Political Science – POL 1, 2, 3, 5</td>
</tr>
<tr>
<td>Geography – GEG 1, 2</td>
</tr>
<tr>
<td>Family and Consumer Studies – FCS 14</td>
</tr>
<tr>
<td>Mathematics – MAT 13</td>
</tr>
</tbody>
</table>

**Sociology and Social Sciences Emphasis Units (≥ 18.0)**

### Electives (Courses Numbered 1-99)

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
</table>

**Elective Units (≥3.0)**

### REQUIRED GENERAL EDUCATION COURSES

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences (Select any CSU-GE or IGETC Science course to fulfill this requirement.)</td>
<td></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></td>
<td>(3)</td>
</tr>
<tr>
<td>Humanities (Select any CSU-GE or IGETC Humanities course to fulfill this requirement.)</td>
<td></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></td>
<td>(3)</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>(3)</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>
<td>(6)</td>
</tr>
</tbody>
</table>

**GE Units (≥ 21.0)**

### SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE

<table>
<thead>
<tr>
<th>REQUIRED MAJOR UNITS</th>
<th>34.0-39.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED DEGREE (AREA OF EMPHASIS) UNITS</td>
<td>18.0</td>
</tr>
<tr>
<td>ELECTIVE UNITS</td>
<td>≥ 3.0</td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
<td>60.0</td>
</tr>
</tbody>
</table>

### TRANSFER STUDENTS
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. Students planning to transfer to a university should follow requirements of the four-year university. Information on course equivalencies and major preparation requirements for University of California (UC) and California State University (CSU) is available online at www.assist.org. Please consult with a Hartnell College counselor to review transfer requirements.
MATHEMATICS—ASSOCIATE OF SCIENCE DEGREE

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.

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>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-3C</td>
<td>Analytic Geometry and Calculus III</td>
<td>4.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>✓ RESTRICTED MAJOR ELECTIVES (Select a minimum of 3.0 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>MAT-12</td>
<td>Number Systems</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>MAT-13</td>
<td>Elementary Statistics</td>
<td>5.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>MAT-16</td>
<td>Finite Mathematics</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>PHY-2A</td>
<td>College Physics I</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>PHY-4A</td>
<td>General Physics/Mechanics</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>CHM-1A</td>
<td>General Chemistry I</td>
<td>5.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>EGN-2</td>
<td>Engineering Graphics/CAD</td>
<td>4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>PHL-15</td>
<td>Critical Thinking and Logic</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>CSS-4</td>
<td>Introduction to Scientific Programming</td>
<td>4.0</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>Elective</td>
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<td></td>
<td></td>
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<tr>
<td>Elective</td>
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<tr>
<td>Elective</td>
<td></td>
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</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 (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>Social &amp; Behavioral Sciences (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td>MAT-4</td>
<td>Linear Algebra</td>
<td>3.0</td>
</tr>
<tr>
<td>Humanities (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td>MAT-5</td>
<td>Differential Equations</td>
<td>3.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>✓ SUMMARIES OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE</th>
<th></th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED MAJOR UNITS</td>
<td>12.0</td>
<td></td>
</tr>
<tr>
<td>RESTRICTED MAJOR UNITS</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE UNITS</td>
<td>22.0</td>
<td></td>
</tr>
<tr>
<td>REQUIRED GENERAL EDUCATION UNITS</td>
<td>23.0</td>
<td></td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
<td>60.0</td>
<td></td>
</tr>
</tbody>
</table>

Hartnell College Catalog – 2008/09
MUSIC—ASSOCIATE OF ARTS DEGREE

The Music Program offers coursework and ensembles that embrace the diversity of our valley. Music is truly the international 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 student 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, vocalists or instrumentalists for the concert stage, opera, musical theatre, jazz, composers and/or arrangers for film, television, multimedia, sound engineering and allied studio/computer arts, conductors in all performance areas, college or university instruction, arts and education administration, writer/scholar in Music. 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>MUS-1A</td>
<td>Beginning Piano I</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS-1B</td>
<td>Beginning Piano II</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS-15</td>
<td>Intermediate Piano</td>
<td></td>
</tr>
<tr>
<td>MUS-16</td>
<td>Advanced Piano</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS-20</td>
<td>Hartnell College Chor</td>
<td>2.0</td>
</tr>
<tr>
<td>MUS-21</td>
<td>Hartnell Chamber Singers</td>
<td></td>
</tr>
<tr>
<td>MUS-23.1</td>
<td>Hartnell Chorale</td>
<td>3.0</td>
</tr>
<tr>
<td>MUS-25</td>
<td>Hartnell College Wind Ensemble</td>
<td></td>
</tr>
<tr>
<td>MUS-26</td>
<td>Jazz Ensemble</td>
<td>4.0</td>
</tr>
<tr>
<td>MUS-29.1</td>
<td>Symphonic Band</td>
<td></td>
</tr>
<tr>
<td>MUS-34.1</td>
<td>Symphony Orchestra</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS-42</td>
<td>Computer-Based Digital Audio Recording</td>
<td>2.0</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>

*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 AA 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—REGISTERED NURSING—ASSOCIATE OF SCIENCE DEGREE**

Hartnell College Registered Nursing Program provides an educational opportunity for qualified individuals interested in a career in nursing. 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.

Due to Registered Nursing being an impacted program, completion of program prerequisites does not guarantee enrollment into the Hartnell College Registered Nursing Program.

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.

<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 Prerequisite for Nursing Program</td>
<td>BIO-6</td>
<td>Introduction to Physiology</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Prerequisite for Nursing Program</td>
<td>BIO-6L</td>
<td>Physiology Laboratory</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Prerequisite for Nursing Program</td>
<td>BIO-7 or BIO-27</td>
<td>General Microbiology or Principles of Microbiology</td>
<td>5.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>NRN-101L</td>
<td>Readiness for Nursing</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE**

- **REQUIRED GENERAL EDUCATION UNITS**: 21.0-24.0
- **REQUIRED MAJOR UNITS**: 43.7-54.7
- **DEGREE TOTAL UNITS**: 60.0-78.7

Please note: Additional Required Prerequisites for Nursing Program admission are listed below under Required General Education Courses.

<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 (Required Prerequisite for Nursing Program)</td>
<td>BIO-5</td>
<td>Human Anatomy</td>
<td>4.0</td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences (Required Prerequisite for Nursing Program)</td>
<td>PSY-1A</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
<tr>
<td>Humanities</td>
<td>ANT-2</td>
<td>Introduction to Anthropology: Cultural **</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>English 1A with Multicultural Perspective** or Ethnic Groups Course (see catalog)</td>
<td>3.0</td>
<td></td>
</tr>
</tbody>
</table>

**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>Required Major Course</td>
<td>NRN-30</td>
<td>Basics of Pharmacology for Nursing Practice</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>NRN-41</td>
<td>Nursing Theory I</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>NRN-41.1</td>
<td>Nursing Clinical I</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>NRN-41.2</td>
<td>Critical Thinking for Nurses I</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>NRN-41.3</td>
<td>Nursing Skills Lab I</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>NRN-50</td>
<td>Nursing Laboratory Practicum</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>NRN-42</td>
<td>Nursing Theory II</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>NRN-42.1</td>
<td>Nursing Clinical II</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>NRN-42.2</td>
<td>Critical Thinking for Nurses II</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>NRN-50</td>
<td>Nursing Laboratory Practicum</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>NRN-43</td>
<td>Nursing Theory III</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>NRN-43.1</td>
<td>Nursing Clinical III</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>NRN-43.2</td>
<td>Critical Thinking for Nurses III</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>NRN-43.3</td>
<td>Nursing Skills Lab III</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>NRN-50</td>
<td>Nursing Laboratory Practicum</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Major Course</td>
<td>NRN-44</td>
<td>Nursing Theory IV</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>NRN-44.1</td>
<td>Nursing Clinical IV</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>NRN-44.2</td>
<td>Critical Thinking for Nurses IV</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>NRN-40</td>
<td>Preceptorship in Nursing</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>NRN-50</td>
<td>Nursing Laboratory Practicum</td>
</tr>
</tbody>
</table>

*Completion of MAT-123 or completion of any math in which MAT-123 is a prerequisite is a grade of “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

**Recommend Major Electives (Select from list; none required)**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended Major Elective</td>
<td>ENG-1A</td>
<td>College Composition and Reading or with Multicultural Perspective**</td>
</tr>
<tr>
<td>Communication and Analytical Thinking</td>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
</tr>
</tbody>
</table>

**RECOMMENDED MAJOR ELECTIVES (Select from list; none required)**

- **NURSING—REGISTERED NURSING—ASSOCIATE OF SCIENCE DEGREE**

**SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE**

- **REQUIRED MAJOR UNITS**: 43.7-54.7
- **REQUIRED GENERAL EDUCATION UNITS**: 19.0-24.0
- **DEGREE TOTAL UNITS**: 72.7-78.7

Hartnell College Catalog – 2008/09
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 deadline date as stated on application. 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 2.5 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
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 catalogue 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” of 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) complete with a grade of “C” or better NRN 20 LVN to RN transition course (this course is offered for students AFTER acceptance into Nursing program)

After acceptance, LVN to RN advanced placement student will enroll in the following:

<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>
</tbody>
</table>

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
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>BIO 6</td>
<td>Introduction Physiology</td>
<td>3.0</td>
</tr>
<tr>
<td>BIO 6L</td>
<td>Introduction to Physiology</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>General Microbiology</td>
<td>5.0</td>
</tr>
</tbody>
</table>

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 LVNRN 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 catalogues may be requested for the evaluation.
VOCATIONAL NURSING—CERTIFICATE OF ACHIEVEMENT

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 Hartnell College Vocational Nursing (VN) Program is a three-semester program designed to prepare qualified individuals to practice vocational nursing. Hartnell College Program includes theory, lab, and clinical experience in cooperation with acute care, long-term settings, and various community agencies. 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).

Because the Hartnell College Vocational Nursing Program is impacted, completion of program prerequisites does not guarantee admission.

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 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 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-5* and BIO-6* and BIO-6L*</td>
<td>Introductory to 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*</td>
<td>General Psychology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥24.0)

<table>
<thead>
<tr>
<th>REQUIRED CERTIFICATE COURSES (CAN BE TAKEN PRIOR TO ACCEPTANCE TO PROGRAM OR CONCURRENT WITH THE FIRST SEMESTER)</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Certificate Course</td>
<td>Growth and Development Across the Lifespan</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Certificate Course</td>
<td>Basic Pharmacology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥ 5.0)

<table>
<thead>
<tr>
<th>REQUIRED CERTIFICATE COURSES AFTER ACCEPTANCE INTO VOCATIONAL NURSING PROGRAM</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Semester</td>
<td>Vocational Nursing I: Fundamentals</td>
<td>10.0</td>
</tr>
<tr>
<td>Required Certificate Course</td>
<td>Vocational Nursing Laboratory Practicum</td>
<td>0.3</td>
</tr>
<tr>
<td>Second Semester</td>
<td>Vocational Nursing II: Care of the Childbearing Family</td>
<td>12.0</td>
</tr>
<tr>
<td>Required Certificate Course</td>
<td>Vocational Nursing Laboratory Practicum</td>
<td>0.3</td>
</tr>
<tr>
<td>Third Semester</td>
<td>Vocational Nursing III: Care of the Adult, Geriatric and Mental Health Patient</td>
<td>12.0</td>
</tr>
<tr>
<td>Required Certificate Course</td>
<td>Vocational Nursing Laboratory Practicum</td>
<td>0.3</td>
</tr>
</tbody>
</table>

SUBTOTAL UNITS (≥34.9)

TOTAL CERTIFICATE UNITS (≥63.9)

*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).
VOCA<+TIONAL 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 application. 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.

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)

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 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 requirement.
PHOTOGRAPHY—ASSOCIATE OF ARTS DEGREE

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 and editorial, wedding and special event photography, industrial photography, travel and adventure, pet photography, scientific photography, forensic photography, or 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.

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.

**Photo courses are marked with MM**

<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/ART/CSS-80</td>
<td>Digital Photographic Imaging</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART/CSS-70</td>
<td>Graphic Design/Computer Graphics</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>ART-12A</td>
<td>Design</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**RESTRICTED MAJOR ELECTIVES (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>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>
<tr>
<td>ART-3</td>
<td>Drawing and Composition</td>
<td>3.0</td>
</tr>
<tr>
<td>ART-6A</td>
<td>Watercolor and Gouache</td>
<td>3.0</td>
</tr>
<tr>
<td>ART-6B</td>
<td>Oils</td>
<td>3.0</td>
</tr>
<tr>
<td>ART-6C</td>
<td>Acrylics</td>
<td>3.0</td>
</tr>
<tr>
<td>ART-10</td>
<td>Art Appreciation</td>
<td>3.0</td>
</tr>
<tr>
<td>ART/CSS-71</td>
<td>Introduction to 2D Digital Illustration</td>
<td>3.0</td>
</tr>
<tr>
<td>ART/CSS-72</td>
<td>Introduction to Digital Arts</td>
<td>3.0</td>
</tr>
<tr>
<td>ART/CSS-77</td>
<td>Digital Video, Audio Editing, &amp; Production</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>
</table>

**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>

**SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE**

<table>
<thead>
<tr>
<th>REQUIRED MAJOR UNITS</th>
<th>21.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESTRICTED MAJOR UNITS</td>
<td>3.0</td>
</tr>
<tr>
<td>ELECTIVE UNITS</td>
<td>15.0</td>
</tr>
<tr>
<td>REQUIRED GENERAL EDUCATION UNITS</td>
<td>21.0</td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
<td>60.0</td>
</tr>
</tbody>
</table>

**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.

Hartnell College Catalog – 2008/09
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/CSS/PHO-80</td>
<td>Digital Photographic Imaging</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</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.
The Physical Education program provides formalized educational opportunities for the development and acquisition of motor skills, and their application in sports and physical activities. This program prepares students to transfer as kinesiology majors at four-year institutions. The Adaptive Physical Education Program parallels the concepts and programs of the Discipline including a broad range of movement skills specifically designed for the special needs individual.

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>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-55</td>
<td>Advanced First Aid</td>
<td>3.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>FCS-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>
</tr>
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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, 1.239</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, 1.138, 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>
</tr>
</thead>
</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>
</tr>
</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-60</td>
<td>Alcohol/Drug Awareness</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>CSS/LIB-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-6L</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>

**ELECTIVES (Courses Numbered 1–199)**

Elective
Elective
Elective

**SUBTOTAL UNITS (≥ 14.0)**


**CON’T 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>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>
<tr>
<td>LIB-5</td>
<td>Information Competency</td>
<td>1.0</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>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>

SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE

<table>
<thead>
<tr>
<th>REQUIRED MAJOR UNITS</th>
<th>18.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED GENERAL EDUCATION ELECTIVES</td>
<td>7.0</td>
</tr>
<tr>
<td>ELECTIVE UNITS</td>
<td>14.0</td>
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<tr>
<td>REQUIRED GENERAL EDUCATION UNITS</td>
<td>21.0</td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
<td>60.0</td>
</tr>
</tbody>
</table>

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.
PHYSICS—ASSOCIATE OF SCIENCE DEGREE

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.

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-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-3C</td>
<td>Analytic Geometry and Calculus III</td>
<td>4.0</td>
</tr>
<tr>
<td>MAT-5</td>
<td>Differential Equations</td>
<td>3.0</td>
</tr>
</tbody>
</table>

SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE

<table>
<thead>
<tr>
<th>REQUIRED MAJOR COURSES</th>
<th>REQUIRED GENERAL EDUCATION COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.0</td>
<td>24.0</td>
</tr>
</tbody>
</table>

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 (Pending Chancellor’s Office Approval)

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.

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-8</td>
<td>Research Methods in 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>PSY-22</td>
<td>Abnormal Psychology</td>
<td>3.0</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>PSY-10</td>
<td>Introduction to Biological 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-45</td>
<td>Special Projects</td>
<td>1.0-3.0</td>
</tr>
<tr>
<td>Recommended Major Elective</td>
<td>PSY-99</td>
<td>Occupational Work Experience Education</td>
<td>1.0-4.0</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>Introduction 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>
</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>
</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 (Select a minimum of 3 units from catalog GENERAL EDUCATION REQUIREMENTS)</td>
<td>BIO-111</td>
<td>Introduction to Human Anatomy &amp; Physiology</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>PSY-1A</td>
<td>General Psychology</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 Reading and Composition</td>
<td>3.0</td>
</tr>
<tr>
<td>B. Communication and Analytical Thinking</td>
<td>MAT-131</td>
<td>Elementary Statistics</td>
<td>5.0</td>
</tr>
</tbody>
</table>

| SUMMARY OF UNITS REQUIRED FOR ASSOCIATE'S DEGREE | | |
| REQUIRED MAJOR UNITS | 12.0 |
| ELECTIVE UNITS | 26.0 |
| REQUIRED GENERAL EDUCATION UNITS | 22.0 |
| DEGREE 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](http://www.assist.org). Please consult with a Hartnell College counselor to review transfer requirements.
REAL ESTATE—ASSOCIATE OF ARTS DEGREE

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.

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>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 I</td>
<td>3.0</td>
</tr>
<tr>
<td>RE-149</td>
<td>Real Estate Economics</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**RESTRICTED MAJOR ELECTIVES (Select a minimum of 6.0 units from the following)**

<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>

**ELECTIVES (Courses Numbered 1–199)**

<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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<td></td>
<td>Elective</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>

**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 Reading and Composition</td>
<td>3.0</td>
</tr>
<tr>
<td>MAT-123*</td>
<td>Intermediate Algebra</td>
<td>5.0</td>
</tr>
</tbody>
</table>

**SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE**

<table>
<thead>
<tr>
<th>Category</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED MAJOR UNITS</td>
<td>18.0</td>
</tr>
<tr>
<td>RESTRICTED MAJOR UNITS</td>
<td>6.0</td>
</tr>
<tr>
<td>ELECTIVE UNITS</td>
<td>15.0</td>
</tr>
<tr>
<td>REQUIRED GENERAL EDUCATION UNITS</td>
<td>21.0</td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
<td>60.0</td>
</tr>
</tbody>
</table>

**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.
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 or Composition and Grammar for ESL</td>
<td>(3.0)</td>
</tr>
<tr>
<td>ENG-101*</td>
<td>Prealgebra</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>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>

*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

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).

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>ANT-2</td>
<td>Introduction to Anthropology: Cultural</td>
<td>3.0</td>
</tr>
<tr>
<td>GEG-1 or GEG-2</td>
<td>Introduction to Geography: Physical Elements or Introduction to Geography: Cultural Elements</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS-17A</td>
<td>History of the United States A</td>
<td>3.0</td>
</tr>
<tr>
<td>POL-1</td>
<td>American Political Institutions</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC-1</td>
<td>Introduction to Sociology</td>
<td>3.0</td>
</tr>
</tbody>
</table>

RESTRICTED MAJOR ELECTIVES (Select a minimum of 18.0 units from the following)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJ-2</td>
<td>Community Relations: Multicultural Diversity</td>
<td>3.0</td>
</tr>
<tr>
<td>ANT-1</td>
<td>Physical Anthropology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANT-3</td>
<td>Introduction to Archaeology</td>
<td>3.0</td>
</tr>
<tr>
<td>ANT-10</td>
<td>California Indians</td>
<td>3.0</td>
</tr>
<tr>
<td>ANT-15</td>
<td>North American Indians</td>
<td>3.0</td>
</tr>
<tr>
<td>ANT-20</td>
<td>Cultures of Mexico</td>
<td>3.0</td>
</tr>
<tr>
<td>BUS-32</td>
<td>Introduction to Business</td>
<td>3.0</td>
</tr>
<tr>
<td>HIST-10</td>
<td>History of California</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS-17B</td>
<td>History of the United States B</td>
<td>3.0</td>
</tr>
<tr>
<td>POL-2</td>
<td>Contemporary Governments Abroad</td>
<td>3.0</td>
</tr>
<tr>
<td>POL-3</td>
<td>International Relations</td>
<td>3.0</td>
</tr>
<tr>
<td>POL-5</td>
<td>Chicano Politics and the American Political System</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>ENG-1A</td>
<td>College Composition and Reading</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Rest and Electives

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

SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE

| Required Major Courses | 15.0 |
| RESTRICTED MAJOR UNITS | 18.0 |
| ELECTIVE UNITS         | 6.0  |
| REQUIRED GENERAL EDUCATION UNITS | 21.0 |
| DEGREE 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.
SPANISH—ASSOCIATE OF ARTS DEGREE (Pending Chancellor’s Office Approval)

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.

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>SPA-1S or SPA-1X</td>
<td>Elementary Spanish or Elementary Spanish for Chicano Students</td>
<td>5.0</td>
</tr>
<tr>
<td>SPA-2S or SPA-2X</td>
<td>Elementary Spanish or Elementary Spanish for Chicano Students</td>
<td>5.0</td>
</tr>
<tr>
<td>SPA-3S or SPA-35</td>
<td>Intermediate Spanish or Intermediate Spanish Speakers</td>
<td>5.0</td>
</tr>
<tr>
<td>SPA-4S or SPA-35</td>
<td>Intermediate Spanish or Intermediate Spanish Speakers</td>
<td>5.0</td>
</tr>
</tbody>
</table>

**RESTRICTED MAJOR ELECTIVES**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT-10</td>
<td>California Indians</td>
<td>3.0</td>
</tr>
<tr>
<td>ANT-20</td>
<td>Cultures of Mexico</td>
<td>3.0</td>
</tr>
<tr>
<td>ETH-1</td>
<td>Intro to Ethnic Studies</td>
<td>3.0</td>
</tr>
<tr>
<td>ETH-2</td>
<td>Chicano Leadership</td>
<td>3.0</td>
</tr>
<tr>
<td>ETH-3</td>
<td>Chicano in American Society</td>
<td>3.0</td>
</tr>
<tr>
<td>ETH-4</td>
<td>Chicano Culture</td>
<td>3.0</td>
</tr>
<tr>
<td>ETH-5</td>
<td>Chicano Politics and the American Political System</td>
<td>3.0</td>
</tr>
<tr>
<td>ETH-6</td>
<td>La Chicana</td>
<td>3.0</td>
</tr>
<tr>
<td>ETH-12</td>
<td>Chicano Cinema</td>
<td>3.0</td>
</tr>
<tr>
<td>ECE-53</td>
<td>Teaching in a Diverse Society</td>
<td>3.0</td>
</tr>
<tr>
<td>HIS-10</td>
<td>History of California</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>MUS-5</td>
<td>Ethnic Music</td>
<td>3.0</td>
</tr>
<tr>
<td>PST-36</td>
<td>Psychology of &quot;La Mujer&quot;</td>
<td>3.0</td>
</tr>
<tr>
<td>SOC-42</td>
<td>Sociology of Minority Relations</td>
<td>3.0</td>
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**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>
<tr>
<td>Elective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td></td>
<td></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>ENG-1A</td>
<td>College Reading and Composition</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.

**SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE**

- REQUIRED MAJOR UNITS: 23.0
- RESTRICTED MAJOR ELECTIVE UNITS: 6.0
- ELECTIVE UNITS: 10.0
- REQUIRED GENERAL EDUCATION UNITS: 21.0
- DEGREE 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](http://www.assist.org). Please consult with a Hartnell College counselor to review transfer requirements.
Theater 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 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 meet the demands of 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.

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>
<td>3.0</td>
</tr>
<tr>
<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>
</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>THA-2A</td>
<td>Art of Interpretive Speech</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>THA-11</td>
<td>Intermediate Acting</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>THA-14</td>
<td>Characterization</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>THA-17</td>
<td>Singing for Actors</td>
<td>2.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>THA-18</td>
<td>Voice and Diction</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>THA-45</td>
<td>Special Projects</td>
<td>1.0-3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>DAN-1</td>
<td>Beginning Ballet</td>
<td>1.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>DAN-30</td>
<td>Jazz Dance I</td>
<td>1.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ENG-17</td>
<td>The Contemporary Shakespeare</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>
</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>
<tr>
<td>Elective</td>
<td></td>
<td></td>
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</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</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

<table>
<thead>
<tr>
<th>SUMMARY OF UNITS REQUIRED FOR ASSOCIATE’S DEGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQUIRED MAJOR UNITS</td>
</tr>
<tr>
<td>RESTRICTED MAJOR ELECTIVE</td>
</tr>
<tr>
<td>ELECTIVES</td>
</tr>
<tr>
<td>REQUIRED GENERAL EDUCATION UNITS</td>
</tr>
<tr>
<td>DEGREE TOTAL UNITS</td>
</tr>
</tbody>
</table>

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

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 Hardfacing 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.

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-169</td>
<td>Hazardous Materials and Industrial Safety</td>
<td>1.0</td>
</tr>
<tr>
<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>WLD-53</td>
<td>Welding Fabrication</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>WLD-54</td>
<td>Advanced Arc Welding</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>WLD-57</td>
<td>Pipe Welding</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>WLD-58</td>
<td>Hardfacing and Surfacing</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>WLD-145</td>
<td>Special Projects</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 and TIG Welding</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>WLD-155</td>
<td>Ornamental Ironwork</td>
<td>2.0</td>
</tr>
<tr>
<td>Required Major Course</td>
<td>WLD-156</td>
<td>Toolmaking</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**SUBLTOUTAL UNITS (23.0)**

<table>
<thead>
<tr>
<th>RESTRICTED MAJOR ELECTIVES (Select a minimum of 10.0 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</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>DRA-52</td>
<td>Introduction to AutoCAD</td>
<td>2.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>ELE-57</td>
<td>Instruments and Controls</td>
<td>5.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>EGN-4</td>
<td>Material Science</td>
<td>3.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>WLD-99</td>
<td>Cooperative Work Experience</td>
<td>1.0-4.0</td>
</tr>
<tr>
<td>Restricted Major Elective</td>
<td>WLD-145</td>
<td>Special Projects</td>
<td>1.0-2.0</td>
</tr>
</tbody>
</table>

**SUBLTOUTAL UNITS (≥ 10.0)**

<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>
</tbody>
</table>

**SUBLTOUTAL 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</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>
<tr>
<td>Communication and Analytical Thinking</td>
<td>BUS/SPE-5</td>
<td>Introduction to Organizational Communication</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**SUBLTOUTAL 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

<table>
<thead>
<tr>
<th>SUMMARY OF UNITS REQUIRED FOR ASSOCIATE'S DEGREE</th>
<th>REQUIRED MAJOR UNITS</th>
<th>REQUIRED ELECTIVE UNITS</th>
<th>REQUIRED GENERAL EDUCATION UNITS</th>
<th>DEGREE TOTAL UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>23.0</td>
<td>10.0</td>
<td>21.0</td>
<td>64.0</td>
</tr>
</tbody>
</table>

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—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>DRA-64</td>
<td>Industrial Print Reading</td>
<td>2.0</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>Hardfacing 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>
<td>2.0</td>
</tr>
<tr>
<td>MEC-169</td>
<td>Hazardous Materials and Industrial Safety</td>
<td>1.0</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-151**</td>
<td>Technical Mathematics</td>
<td>(3.0)</td>
</tr>
</tbody>
</table>

**RESTRICTED MAJOR ELECTIVES (Select a minimum of 6.0 units from the following)**

<table>
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</tr>
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<td>WLD-99</td>
<td>Cooperative Work Experience</td>
<td>1.0-4.0</td>
</tr>
<tr>
<td>WLD-145</td>
<td>Special Projects</td>
<td>1.0-2.0</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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Type</th>
<th>Advisory</th>
<th>Semesters Offered</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ADJ1</strong></td>
<td>Intro. to Administration of Justice</td>
<td>3</td>
<td>Lec</td>
<td>Credit/No Credit Option</td>
<td>Variable</td>
<td>See below.</td>
</tr>
<tr>
<td><strong>ADJ2</strong></td>
<td>Community Relations: Multicultural Diversity/ Discrimination</td>
<td>3</td>
<td>Lec</td>
<td>Credit/No Credit Option</td>
<td>Variable</td>
<td>See below.</td>
</tr>
<tr>
<td><strong>ADJ3</strong></td>
<td>Concepts Of Criminal Law</td>
<td>3</td>
<td>Lec</td>
<td>Credit/No Credit Option</td>
<td>Variable</td>
<td>See below.</td>
</tr>
<tr>
<td><strong>ADJ4</strong></td>
<td>Criminal Evidence</td>
<td>3</td>
<td>Lec</td>
<td>Credit/No Credit Option</td>
<td>Variable</td>
<td>See below.</td>
</tr>
<tr>
<td><strong>ADJ5</strong></td>
<td>Criminal Procedures</td>
<td>3</td>
<td>Lec</td>
<td>Credit/No Credit Option</td>
<td>Variable</td>
<td>See below.</td>
</tr>
<tr>
<td><strong>ADJ6</strong></td>
<td>Victims Rights</td>
<td>3</td>
<td>Lec</td>
<td>Credit/No Credit Option</td>
<td>Variable</td>
<td>See below.</td>
</tr>
<tr>
<td><strong>ADJ7</strong></td>
<td>Internship in Criminal Justice</td>
<td>3</td>
<td>Lec</td>
<td>Credit/No Credit Only</td>
<td>Variable</td>
<td>See below.</td>
</tr>
<tr>
<td><strong>ADJ8</strong></td>
<td>Criminal Investigation</td>
<td>3</td>
<td>Lec</td>
<td>Credit/No Credit Option</td>
<td>Variable</td>
<td>See below.</td>
</tr>
<tr>
<td><strong>ADJ9</strong></td>
<td>Internship in Criminal Justice Internship</td>
<td>3</td>
<td>Lec</td>
<td>Credit/No Credit Option</td>
<td>Variable</td>
<td>See below.</td>
</tr>
<tr>
<td><strong>ADJ10</strong></td>
<td>Juveniele Procedures</td>
<td>3</td>
<td>Lec</td>
<td>Credit/No Credit Option</td>
<td>Variable</td>
<td>See below.</td>
</tr>
<tr>
<td><strong>ADJ11</strong></td>
<td>Law Enforcement Report Writing</td>
<td>3</td>
<td>Lec</td>
<td>Credit/No Credit Option</td>
<td>Variable</td>
<td>See below.</td>
</tr>
<tr>
<td><strong>ADJ12</strong></td>
<td>Legal Aspects of Corrections</td>
<td>3</td>
<td>Lec</td>
<td>Credit/No Credit Option</td>
<td>Variable</td>
<td>See below.</td>
</tr>
<tr>
<td><strong>ADJ21A</strong></td>
<td>Narcotics and Dangerous Drugs</td>
<td>3</td>
<td>Lec</td>
<td>Credit/No Credit Option</td>
<td>Variable</td>
<td>See below.</td>
</tr>
<tr>
<td><strong>ADJ25</strong></td>
<td>Introduction to Paralegal/ Legal Assistanship</td>
<td>3</td>
<td>Lec</td>
<td>Credit/No Credit Option</td>
<td>Variable</td>
<td>See below.</td>
</tr>
<tr>
<td><strong>ADJ26</strong></td>
<td>Contracts</td>
<td>3</td>
<td>Lec</td>
<td>Credit/No Credit Option</td>
<td>Variable</td>
<td>See below.</td>
</tr>
<tr>
<td><strong>ADJ27</strong></td>
<td>Paralegal/ Legal Assistantship</td>
<td>3</td>
<td>Lec</td>
<td>Credit/No Credit Option</td>
<td>Variable</td>
<td>See below.</td>
</tr>
</tbody>
</table>

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ADJ30. Sexual Assault Investigation (3)
Credit/No Credit 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. Constitutional Law for Criminal Justice Professionals (3)
Credit/No Credit Option
Advisory: See below.
Lec 3 Hrs
Semesters Offered: Variable

Focuses on the federal constitution and its relevance to criminal justice issues. Overview of the United States legal system, instruction in basic legal research, and an examination of the constitutional amendments influencing the criminal justice system, such as freedom of speech and the press; gun control; search and seizure; the exclusionary rule; due process of law; confessions; the right to counsel; fair trial; bail; fines and punishment.

[CSU]

ADJ34. Civil Litigation (3)
Credit/No Credit Option
Advisory: See below.
Lec 3 Hrs
Semesters Offered: Variable

Provides students with a fundamental understanding of preparing a civil case for trial. Topics include: California procedural statutes and rules governing civil litigation, the attorney-client relationship, court organization, purposes of the steps in case preparation, and post-litigation concerns. Students will practice client interviewing, drafting of pleadings and motions, deposition summaries, evidence gathering and discover procedures.

[CSU]

ADJ35. Torts/Personal Injury Law
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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 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.

[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)
Lec 3 Hrs
Semesters Offered: Variable

An examination of theories of the psychological and social factors underlying crime and criminal behavior, crime statistics; patterns of antisocial behavior; treatment and preventive measures.

[CSU; CSU-GE, AREA D0]

ADJ61. Control and Supervision in Corrections (3)
Credit/No Credit 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 offender and the correctional worker.

[CSU]

ADJ102. PC832 Arrest and Firearms (3.5)
Credit/No Credit 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 fire arms 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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AGR3. 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.

AGR24. Agribusiness Management Project (2)  
**Advisory:** Completion of AGR 49, *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.

AGR49. Intro. 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 agriculture 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.  
[CSU; UC]

AGR52. 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 agriculture sector will be explored.  
[CSU]

AGR53. Agribusiness Economics (3)  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
This course is designed to further a students’ 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.  
[CSU; UC]

AGR54. 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 the marketing of selected locally grown commodities will be made. Course designed for students interested in Agriculture Business and Agriculture Production major.  
[CSU]

AGR56. Introduction to Mechanized Agriculture (3)  
**Lec 2 Hrs; Lab 3 Hrs**  
**Semesters Offered:** Variable  
This course involves basic mechanical skills in woodworking, cold metal, electricity, plumbing, concrete, and project construction skills as related to farm maintenance and repair. Hand and power tool use skills will be developed. Safety practices for all mechanical areas will be covered.  
[CSU; CAN AG 4]

AGR57. Agriculture Computer Applications (3)  
**Advisory:** Spreadsheets and word processing skills recommended.  
**Lec 2 Hrs; Lab 2 Hrs**  
**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.  
[CSU; UC; CAN AG 2]

AGR58. 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. This course is designed to prepare students for the state pesticide laws and regulations exam.  
[CSU]

AGR63. 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.  
[CSU]

AGR64. 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.  
[CSU]

AGR65. Introduction to Geographic Information Systems (GIS) (4)  
**Credit/No Credit Option**  
**Lab 6 Hrs**  
**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. Includes hands-on exposure to computers and state of the art GIS application and software. GIS software package is provided during laboratory. (Not open to students who have previously completed CSS 66, DRA 66).  
[CSU]

AGR66. Applied Geographic Information Systems (GIS) (3)  
**Credit/No Credit Option**  
**Lab 3 Hrs; Lec 2 Hrs**  
**Semesters Offered:** Variable  
Provides an introduction and extensive practice in the use and application of GIS 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.  
[CSU]

AGR67. Soil Science (3)  
**Semesters Offered:** Variable  
This course provides a basic knowledge of the genetic, physical, chemical, and biological properties of soils. The course explores principles involved in the interpretation of soil information for land use management, including agricultural production and non-agricultural uses), and conservation. Includes a weekly laboratory activity.  
[CSU; UC; CAN AG 14, CSU-GE AREA B1; IGETC, AREA 5]

AGR91. Agriculture Laws and Regulations (3)  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
The course will provide students with a basic knowledge of regulations and safety as they pertain to the agriculture industry. Topics to include: OSHA, EPA regulations, and related regulations, personal safety, pesticides safety, ergonomics, sexual harassment, hand and power tools safety, power equipment safety, food safety, lab or management, topics (discipline, violence, ADA, discriminations, hazardous material safety.)  
[CSU]

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AGR92. Plant Science (3)
Lec 2 Hrs; Lab 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. [CSU; UC; CAN AG 8; CSU, AREA B2; IGETC, AREA 5]

AGR93. Product Processing and Cooling (3)
Lec 3 Hrs
Semesters Offered: Variable
Introduction to the specializations 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. [CSU]

AGR94. Agricultural Machinery Management (3)
Lec 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. [CSU; UC; CAN AG16]

AGR96. 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 in of the Central Coast and throughout California. Field trips to local vegetable production fields and the Hartnell East Campus will be required. [CSU]

AGR97. Vineyard Production and Management (3)
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
Production and management practices of grapes, 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. [CSU; UC]

AGR98. 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. [CSU]

AGR101. Organic Vegetable Production (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. This course will cover 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.

AGR102. 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. This course will cover the practical field methods involved in soil preparation, 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.

AGR103. 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. This course will cover 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).

AGR104. Agriculture Business Development for New Organic Farmers
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. This course will cover 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).

AGR105. 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. This course will cover 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.)

AGR110. 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 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.

AGR160. 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.

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.
AGR166. Hazwoper-40 Hour Training (2)
Credit/No Credit Option
Lec 1.75; Lab .75
Seminars Offered: Variable
Basic course covering toxicology, chemical hazards, types of protection, safe work practices, site control, decontamination contingency plan, and data collection and interpretation. This course is designed to meet 29CFR1910.120 paragraph (e) requirements for general site workers. Not open to students who have completed ET 175.

AGR169. Hazardous Materials and Industrial Safety (1)
Lec 1 Hr
Seminars 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 MEC 169.

AGR258. Agriculture Ambassadors (2)
Lec 1 Hr; Lab 3 Hrs
Seminars 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.

AGR267. Hazwoper-8 Hour Refresher Course (.5)
Credit/No Credit Only
Lec .5 Hr
Seminars Offered: Variable
Basic course covering toxicology, chemical hazards, types of protection, safe work practices, site control, decontamination contingency plan, and data collection and interpretation. Not open to students who have completed ET 277.

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.
AH103. Comparative Anatomy and Physiology (6.5)
Prerequisite: Admission into the Hartnell College AHT program.
Advisory: BIO-10 with a grade of "C" or better.
Lec 4 Hrs; Lab 6 Hrs
Semesters Offered: Variable
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.

AH104. Comparative Pathology and Pharmacology (4)
Prerequisite: AHT-103 with a grade of "C" or better.
Advisory: BIO-10 and CHM-1A with a grade of "C" or better.
Lec 4 Hrs; Lab 1.5 Hrs
Semesters Offered: Variable
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.

AH105. Animal Care and Management/ Large Animals (4.5)
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
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 protocols and health programs of large animals and small animals will be discussed. Drug dosage calculations will also be emphasized. Laboratory sessions provide the opportunity for students to develop skills in physical examination, handling and restraint, administration of medications, collection techniques, and hoof 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.

AH106. Clinical Procedures I (3.5)
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
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.

AH107. Clinical Procedures II (3)
Prerequisite: Completion of AHT 102, 103, 104, 105 & 106 with a grade of C or better.
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
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, imaging, application of coaptation casts and splints and veterinary emergency medicine. Advanced procedures in avian and equine care will also be presented. (Concurrent enrollment in AHT 145 and 147 recommended.) Students shall participate in care of colony animals and special assignments at scheduled times outside of normal class hours.

AH108. Veterinary Office Practice and Interpersonal Skills (2)
Lec 2 Hrs
Semesters Offered: Variable
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.

AH109. Veterinary Clinical Pathology (4)
Prerequisite: Admission to the Hartnell College Animal Health Technology Program.
Lec 2 Hrs; Lab 6 Hrs
Semesters Offered: Variable
A study of laboratory techniques commonly utilized in the diagnosis of animal disease. Lecture and laboratory topics include parasitology, hematology, serum chemistries, urinalysis, cytology and necropsy procedures.
AHT110. Diagnostic Radiography (4.5)
Prerequisite: Admission to the Hartnell College Animal Health Technology Program.
Lec 2 Hrs; Lab 3 Hrs
Semesters 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 to 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
Semesters 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
Semesters 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
Semesters Offered: Variable
Designed to provide descriptions 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
Semesters 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
Semesters 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 care and management to animal health. Students will provide their own animal species with proper housing and nutritional needs as required by the U.S.D.A. 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
Semesters 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 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
Semesters 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 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.

AHT147. Animal Health Enrichment (1)
Credit/No Credit Only
Prerequisite: Concurrent enrollment in AHT 102, 105, 107, or 111.
Lab 3 Hrs
Semesters 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 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.

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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; CAN ANTH 2; CSU-GE, AREA B2, DI; 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; CAN ANTH 4; 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; CAN ANTH 6; 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, ethnographical 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]
APP120. 1st Year Commercial Electrical Appr. I (5)
**Credit/No Credit 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 Indented Inside Electrical Apprentice. This limitation is authorized by Section 3074.3 of the State Labor Code.

**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. In 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.
APP150. 1st Year Residential Wireman
Apprenticeship 1st Semester (4)
Credit/No Credit Option
Lec 3.5 Hrs; Lab 1.5 Hrs
Semesters Offered: Variable
First semester of the first year in the three-year Residential Wireman 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)
Credit/No Credit 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.

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.
ART1A. History of Art (3)
   Lec 3 Hrs
   Semesters 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; CAN ART 2, CAN ART SEQ A with ART 1A & 1B; CSU-GE, AREA C1; IGETC, AREA 3]

ART1B. History of Art (3)
   Lec 3 Hrs
   Semesters 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; CAN 4, CAN ART SEQ A with ART 1A & 1B; CSU-GE, AREA C1; IGETC, AREA 3]

ART2. Drawing and Composition (3)
   Lec 2 Hrs; Lab 4 Hrs
   Semesters 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; CAN ART 8]

ART3. Drawing and Composition (3)
   Lec 2 Hrs; Lab 4 Hrs
   Semesters 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; CAN ART 8]

ART4. History of Art (3)
   Lec 3 Hrs
   Semesters 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]

ART6A. Watercolors and Gouache (3)
   Lec 2 Hrs; Lab 4 Hrs
   Semesters 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; CAN ART 10]

ART6B. Oils (3)
   Lec 2 Hrs; Lab 4 Hrs
   Semesters 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
   Semesters Offered: Variable
Study of painting in opaque and transparent acrylics.
[CSU; UC]

ART10. Art Appreciation (3)
   Lec 3 Hrs
   Semesters 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
   Semesters 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; CAN ART 14]

ART15A. Ceramics A (3)
   Lec 2 Hrs; Lab 4 Hrs
   Semesters 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; CAN ART 6]

ART15B. Ceramics B (3)
   Lec 2 Hrs; Lab 4 Hrs
   Semesters 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
   Semesters 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
   Semesters 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 construction 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
   Semesters 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. 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]

ART41B. Jewelry II (3)
   Prerequisite: Art 41A with a grade of C or better.
   Lec 2 Hrs; Lab 4 Hrs
   Semesters 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)
   Semesters 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)
   Semesters Offered: Variable
Supervised studio work in a selected medium.
[CSU]

ART50. Gallery Management (3)
   Lec 2 Hrs; Lab 3 Hrs
   Semesters Offered: Variable
A study and practice of gallery operations in organizing, preparing and installing exhibitions in various media.
[CSU]

ART51. 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]

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.
ART52. 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]

ART70. 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 utilize the computer graphic applications of Adobe Illustrator, Adobe Pagemaker, and Quark X Press on the Macintosh computer. Not open to those students who have successfully completed CIS 70 and CSS 70.

[CSU]

ART71. 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 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 70 and CSS 70.

[CSU]

ART72. 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]

ART73. 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, storytelling, skeletal framework, and anatomical details. Students will have hands on experience with figure characters, object models and two-dimensional sequential movement illustration.

[CSU]

ART75. 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]

ART76. 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]

ART77. 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 Adobe Premiere and Adobe After Effects. Students will use video and audio editing software to create Quicktime movies for presentations, CDROMs and DVD’s. Not open to students who have completed CIS 77 or CSS 77.

[CSU]

ART80. 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]

ART85. 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 go through the development process of choosing a theme, determining a premise, structuring a story board and creating a multimedia production. Not open to students who have completed CIS 85 or CSS 85.

[CSU]

ART87. 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
Semesters 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
Semesters 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
Semesters 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**
  **Semesters 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**
  **Semesters 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**
  **Semesters 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**
  **Semesters 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**
  **Semesters Offered:** Variable
  A study of textile design and skill building production methods with emphasis on Pre-Columbian art traditions.

ART150. Low-Fire Ceramics (1)
  **Credit/No Credit Option**
  **Lec .5 Hrs; Lab 1.5 Hrs**
  **Semesters Offered:** Variable
  Forming and firing clay emphasizing traditional and experimental low-fire processes.

ART219. Primitive Firing (1)
  **Credit/No Credit Option**
  **Lec .5; Lab 1.5**
  **Semesters Offered:** Variable
  Forming and firing clay emphasizing traditional and experimental primitive firing process.

ART220. Raku Workshop (1)
  **Credit/No Credit Option**
  **Lec .5 Hrs; Lab 1.5 Hrs**
  **Semesters Offered:** Variable
  Forming and firing clay emphasizing traditional and experimental raku processes.

AST1. Introduction to Astronomy (3)
  **Corequisite:** AST1L (optional)
  **Lec 3 Hrs**
  **Semesters Offered:** Variable
  A comprehensive survey of modern astronomy stressing scientific method and the interpretation of NASA data in discovering the nature of our Solar System and the Universe. Planetarium demonstrations and telescope observations 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:** Completion of or concurrent enrollment in AST 1 is required.
  **Lab 3 Hrs**
  **Semesters Offered:** Variable
  Laboratory course in astronomy that uses a combination of earth-based experiments and NASA information to teach the basic principles and methods of modern astronomy. Students will make their own measurements as well as use NASA information to calculate such things as the age of the universe, the age of the moon, the mass of Jupiter, orbital periods of binary stars, the chemical composition of stars and the probability of extra-terrestrial life. Telescope observations 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 7.5 Hrs  
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.  
[CSU]

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.  
[CSU]

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.  
[CSU]

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.  
[CSU]

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.  
[CSU]

AUC145. Special Projects (5-2)  
Credit/No Credit 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)  
Credit/No Credit 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, 50A, 50B, 50C, 150A, 150B, 150C.

AUC150A. Introduction to Auto Collision Repair & Refinishing (2)  
Credit/No Credit 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)  
Credit/No Credit 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)  
Credit/No Credit 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.

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 moveable 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.

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 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.
AUT50. Introduction to Automotive Repair (4)  
*Credit/No Credit Option*  
**Lec** 2 Hrs; **Lab** 6 Hrs  
**Semesters Offered:** Variable  
Advisory: This course covers the basics of automotive repair, including the use of tools and the repair of basic systems. Completion of this course is recommended for students interested in pursuing a career in automotive repair.  
**Prerequisite:** None  
**Semesters Offered:** Variable  
This course is designed to provide students with a basic understanding of automotive repair, including the repair of basic systems and components. Completion of this course is recommended for students interested in pursuing a career in automotive repair.  
**Prerequisite:** None

AUT51. Auto Engine Performance and Diagnostics (4)  
**Lec** 2 Hrs; **Lab** 6 Hrs  
**Semesters Offered:** Variable  
Diagnosis and repair of gasoline engines, including ignition system diagnosis, repair procedures, valve adjusting, fuel system testing, servicing turbochargers, exhaust and intake systems diagnosis and repair. Control diagnosis and repair. Proper use of tools and literature to perform adjustments and troubleshooting to maintain proper engine performance.  
**Prerequisite:** None  
**Semesters Offered:** Variable  
This course covers the diagnosis and repair of gasoline engines, including ignition system diagnosis, repair procedures, valve adjusting, fuel system testing, servicing turbochargers, exhaust and intake systems diagnosis and repair. Control diagnosis and repair. Proper use of tools and literature to perform adjustments and troubleshooting to maintain proper engine performance.  
**Prerequisite:** None

AUT55. Auto Machining I (4)  
**Lec** 2 Hrs; **Lab** 6 Hrs  
**Semesters Offered:** Variable  
**Prerequisite:** None  
**Semesters Offered:** Variable  
**Prerequisite:** None

AUT56. 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.  
**Prerequisite:** None  
**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.  
**Prerequisite:** None

AUT71. Auto Brake Systems and Controls (4)  
**Lec** 2 Hrs; **Lab** 6 Hrs  
**Semesters Offered:** Variable  
Theory, service and repair of conventional ABS brake systems. Valve train theory, inspection, and repair. Proper use of tools and literature to perform adjustments and troubleshooting to maintain proper engine performance.  
**Prerequisite:** None  
**Semesters Offered:** Variable  
Theory, service and repair of conventional ABS brake systems. Valve train theory, inspection, and repair. Proper use of tools and literature to perform adjustments and troubleshooting to maintain proper engine performance.  
**Prerequisite:** None

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, dynanometer, 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 emission, 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.  
**Prerequisite:** None  
**Semesters Offered:** Variable  
Covers fuel systems and, emissions control systems, including theory of operation, diagnosis, adjustments and repair. Use of the ignition oscilloscope, dynanometer, 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 emission, 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.  
**Prerequisite:** None

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 introduces the different types of fuel qualities and the various applications of fuel.  
**Prerequisite:** AUT55 with a grade of C or better  
**Semesters Offered:** Variable  
This course introduces the different types of fuel qualities and the various applications of fuel.  
**Prerequisite:** AUT55 with a grade of C or better

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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.

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.

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.

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 Hr; 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
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)
Credit/No Credit Option
Semesters Offered: Variable
Supervised study and laboratory practice involving special problems including troubleshooting using electronic test equipment. 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, diesel/heavy-duty technology electrical systems, 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, tire service, wheel alignment fundamentals, and front and rear wheel drive fundamentals.

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.
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 serving. 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 diesel engine 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 basic 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)

Credit/No Credit Option
Lec 1.5 Hr; 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:** Variable  
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; CAN BIOL 2, CAN BIOL SEQ A with BIOL 1, 2, 3; 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:** Variable  
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; CAN BIOL 4, CAN BIOL SEQ A with BIOL 1, 2, 3; 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:** Variable  
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; CAN BIOL 6, CAN BIOL SEQ A with BIOL 1, 2, 3; 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; CAN BIOL 10, CAN BIOL SEQ B with BIO 5, 6, & 6L; 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; CAN BIOL 12 with BIO 6 & 6L; CAN BIOL SEQ B with BIO 5, 6, & 6L; CSU-GE, AREA B2; IGETC, AREA 5]

BIO6L. Physiology Laboratory (2)  
**Prerequisite:** Biology 6 with a grade of C or better. (may be taken concurrently)  
**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; CAN BIOL 12 WITH BIO 6 & 6L; CAN BIOL SEQ B with BIO 5 & 6 & 6L; 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; CAN BIOL 14; CSU-GE, AREA B2, B3; 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  
A college-level biology course with a grade of C or better.  
**Credit/No Credit Option**  
**Advisory:** Completion of one year of beginning algebra (high school or college) with a grade of “C” or better. Students taking this course 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 have adequate hardware and software such as Windows 98/2000/XP, Mac OS8-10 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  
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]
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.
BUS1A. Financial Accounting (4)  
Credit/No Credit 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; CAN BUS 2, CAN BUS SEQ A with CAN BUS 1A & 1B]  

BUS1B. Managerial Accounting (4)  
Credit/No Credit Option  
Prerequisite: BUS1A with a grade of C or better.  
Advisory: Recommend concurrent enrollment in BUS 105, Managerial Accounting Computer Applications.  
Lec 3.5 Hrs; Lab 1.5 Hrs  
Semesters Offered: Variable  
Continuation of Business 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, variance investigation, and information for decision alternatives.  
[CSU; UC; CAN BUS 4, CAN BUS SEQ A with CAN BUS 1A & 1B]  

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  
Provides 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)  
Credit/No Credit Option  
Advisory: See below.  
Lec 3 Hrs  
Semesters Offered: Variable  
An introduction to the sources of law, the legal system, the court system, administrative law and basic constitutional law. The course focus will be law and its relationship to business. Explores business crimes, business torts, contracts, agency, employment discrimination law and the legal aspects of various business organizations like partnerships and corporations. This course may be offered in the web-based format.  
[CSU; UC; CAN BUS 12]  

BUS26. Contracts (3)  
Credit/No Credit 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)  
Credit/No Credit Option  
Semesters Offered: Variable  
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)  
Credit/No Credit 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 structure, organization and operating procedures of businesses enterprises. This course may be offered in the web-based format.  
[CSU; UC; CSU-GE, AREA D2]  

BUS34. Small Business Management (3)  
Credit/No Credit 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 (.5-3)  
Credit/No Credit 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)  
Credit/No Credit 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)  
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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.

BUS110. Beg. Keyboarding and Document Formatting (3)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit Option
Lec 2 Hrs
Semesters Offered: Variable
Introduction to customer service skills and their applications as required in the workplace.

BUS129. Practical Customer Service Skills (2)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit Option
Prerequisite: Completion of BUS 140A with a grade of C or better.
Lab 27 Hrs
Semesters Offered: Variable
Continuation in the development of keyboarding skills focusing on 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 for a total of two units.

BUS148.1. Adaptive Computer Keyboarding (1)
Credit/No Credit 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.

BUS148.2. Adaptive Word Processing (1.5)
Credit/No Credit 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.

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.
BUS148.3 Adaptive Internet Literacy (1)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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 (.5)
Credit/No Credit Only
Advisory: Keyboarding skill of 25 words a minute recommended.
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 159.15A.

BUS159.15B. Word Processing – Module II (.5)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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 (.5)
Credit/No Credit Option
Prerequisite: BUS 172.1 with a grade of C or better.
Advisory: Completion of BUS 151 (Business Arithmetic) is strongly recommended.
Lec 1.5 Hrs
Lab 1.5 Hrs
Semesters Offered: Variable
Use of the 10-key pad on the microcomputer to develop speed and accuracy by touch.

BUS172.2. Machine Calculations Applications (.5)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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 (3)
Credit/No Credit Option
Advisory: Successful completion of ENG 101. See Below.
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.

BUS186. Medical and Insurance Billing (3)
Advisory: Successful completion of ENG 101. See Below.
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.

BUS190. Professional Development and Career Management (2)
Credit/No Credit Option
Lec 2 Hrs
Semesters Offered: Variable
Emphasis on career planning, the job application process and documents, job application skills, and career planning.

THE WINNING HARTNELL COLLEGE SIFE TEAM AT REGIONAL COMPETITION IN HOLLYWOOD
The Hartnell College BUS 30 Class, Students in Free Enterprise Team, are winners for the second year in a row after being crowned champions in the SIFE USA Regional Competition on April 7, 2008, and they placed in the top 16 at the National Competition held in Chicago, Illinois.

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.
CHM1A. General Chemistry I (5)
Prerequisite: Two years of high school algebra or Math 123; or Chemistry 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; CAN CHEM 2, CAN CHEM SEQ A with CHM 1A & 1B; 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; CAN CHEM 4, CAN CHEM SEQ A with CHM 1A & 1B; 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)
Advisory: Eligibility for Math 123 is recommended.
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; CAN CHEM 6, CAN CHEM SEQ B with CHM 22 & 23; 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 premedicine or predentistry majors.
[CSU; CAN CHEM 8, CAN CHEM SEQ B with CHM 22 & 23; 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]

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.
CS23. Computer Architecture and Assembly Language Programming (4)

Prerequisite: CSS 1 or C or better.

Semesters Offered: Variable
Introduces students to the organization and architectural principles 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 units; 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. Formerly CIS-3.

[CSU; UC]

CS24. 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]

CS25. Programming in Visual Basic (4)

Prerequisite: CSS 1 with a grade of C or better.

Semesters Offered: Variable

A comprehensive programming course that emphasizes the design, coding and debugging of programs written in Visual Basic. Topics include: object-oriented programming, 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]

CS26. Multimedia Integration (3)

Prerequisite: CSS 43 (previously CIS 11), CSS/LBT 90 (previously CIS 90), or BUS/CSS 109 (previously CIS 109).

Semesters Offered: Variable

A focus will be placed on the history and influence of learning through the use of multimedia. 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 multimedia into learning presentations, on line design and learning through multimedia.

[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.
CSS27. Digital Project Management and Content Development (4)

**Credit/No Credit 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 methodology behind the rules and play of games, visual and audio design, programming concepts, interactive storytelling and game production. Topics include criticism, analysis and methodology behind the rules and play of games, visual and audio design, programming concepts, interactive storytelling and game production. Course is taught using Oracle database software.

[CSU]

CSS29. Programming for Multimedia (3)

**Credit/No Credit 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)

**Credit/No Credit 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)

**Credit/No Credit 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)

**Credit/No Credit 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)

**Credit/No Credit 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]

CSS34. Database Forms and Reports (4)

**Credit/No Credit 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)

**Credit/No Credit Option**

**Advisory:** See Below.

**Lec 3 Hrs; Lab 3 Hrs**

**Semesters Offered:** Variable

Basic concepts of operating systems and system programming. Processes and interprocess 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)

**Credit/No Credit 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, spreadsheets, presentation 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)

**Credit/No Credit Option**

**Prerequisite:** Any CSS course with a grade of C or better.

**Advisory:** See Below.

**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)

**Credit/No Credit Option**

**Advisory:** See Below.

**Lec 3 Hrs; Lab 3 Hrs**

**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]

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.
CSS60B. 3-D Game Development (4)  
**Credit/No Credit Option**  
**Lec 3 Hrs; Lab 3 Hr**  
**Semesters Offered:** Variable  

An introduction to 3-dimensional computer game design. Topics include criticism, analysis and history of 3-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]

CSS66. Introduction to Geographic Information Systems (GIS) (4)  
**Credit/No Credit Option**  
**Lec 3 Hrs; Lab 1 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. Includes hands-on exposure to computers and state of the art GIS application and software. GIS software package is provided during laboratory. (Not open to students who have previously completed AGR 66, DRA 66).  

[CSU]

CSS70. 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 utilize the computer graphic applications of Adobe Illustrator, Adobe Pagemaker and Quark X Press on the Macintosh computer. Not open to those students who have successfully completed ART 70 or CIS 70.  

[CSU]

CSS72. Introduction to Multimedia (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 have completed ART 72.  

[CSU]

CSS75. 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 ART 75.  

[CSU]

CSS77. 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 Adobe Premiere 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 ART 77 or CIS 77.  

[CSU]

CSS78. Beginning Flash Game Design and Programming (4)  
**Credit/No Credit Option**  
**Advisory: See Below.**  
**Lec 3 Hrs; Lab 3 Hrs**  

Introduction to beginning game programming using Flash. A brief history of game programming and its uses in today's society will be discussed. Students will learn the basic concepts and components of game programming using action-scripting language. Technical and design ideas will be examined for each component of game design. Students will develop the appropriate skill necessary to develop basic games.  

[CSU]

CSS80. 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 ART 80, CIS 80 or PHO 80.  

[CSU]

CSS84. Beginning Digital Cartooning in Flash (4)  
**Credit/No Credit Option**  
**Advisory: See Below.**  
**Lec 3 Hrs; Lab 3 Hrs**  

A hands-on approach to designing and developing basic digital cartoons in Flash. Students will be involved in a step-by-step process that starts with storyboarding, basic animation principles, character design and development, and designing basic animation in Flash.  

[CSU]

CSS85. 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 go through the development process of choosing a theme, determining a premise, structuring a story board and creating a multimedia production. Not open to students who have completed ART 85.  

[CSU]

CSS87. 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 ART 87.  

[CSU]

CSS90. 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 LIB-90 or LBT-90.  

[CSU]

CSS107. Internship in Computer Science and Information Systems (3)  
**Credit/No Credit Only**  
**Lec 1 Hr; Lab 6 Hrs**  
**Prerequisite:** CSS 1, CSS 11, CSS 12, CSS 31, CSS 170A, 170B with a grade of C or better.  
**Semesters Offered:** Variable  

The course provides students with work experience in computer information systems with one or more local business or organization. Classroom discussions relate course vocational students’ experiences to selected readings and topics in computer science and information systems. Continuous evaluations will be conducted by field supervisors in each agency in coordination with the instructor. A written term project relating to the job experience or literature research will be required.  

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.
CSS109. Intro to PC Applications (4)  
Credit/No Credit 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 BUS 109 with a grade of C or better.  
[CSU; UC]

CSS110. Computer Science and Information Systems Topics (2-4)  
Credit/No Credit Option  
Prerequisite: CSS 1 with a grade of C or better.  
Lec 2 - 4 Hrs  
Semesters Offered: Variable  
Explores current issues and special topics in the areas of Computer Science and Information Systems. Topics vary by semester. Examples of topics: graphics programming, internet security, geographic information systems and data warehousing.

CSS 121A. Networking Fundamentals (4)  
Credit/No Credit Option  
Lec 3 Hrs; Lab 3 Hrs  
Semesters Offered: Variable  
An introduction to computer network hardware terminology and concepts. This course introduces network standards, concepts, topology and terminology including LANS, WANs, the OSI model, cabling, IP addressing, network hardware and various protocols. (This is the first course in the Cisco Networking Academy curriculum.)

CSS 121B. Networking Management – Hardware (4)  
Credit/No Credit Option  
Lec 3 Hrs; Lab 3 Hrs  
Semesters Offered: Variable  
Overview of network router concepts and theory. Discussion of router elements, TCP/IP transport-layer protocols, and flow control. Hands-on experience with router setup, configuration, and monitoring. This course is part of a set of courses that cover materials for the CCNA and Network+ certification exams. (This is the second course in the Cisco Networking Academy curriculum.)

CSS 121C. Fundamentals of LAN/WAN Systems Integration (4)  
Credit/No Credit Option  
Prerequisite: CSS 121B  
Lec 3 Hrs; Lab 3 Hrs  
Semesters Offered: Variable  
Intermediate principles and practices of switching, routing and network design in TCP/IP networks, including NAT, PAT, VLAN switching, EIGRP, OSPF and RIPv2 routing, router access control lists, and principles of local network, design and management. Principles and practices of wide area network design and implementation, including PPP, ISDN, frame relay, and principles of wide-area network management. (The course includes the CCNA 3 and 4 curriculum.)

CSS 122. Computer Security Principles (4)  
Lec 3 Hrs; Lab 3 Hrs  
Semesters Offered: Variable  
Covers the essentials of computer and network security. Includes security objectives and the role of policy deployment while practicing to defend against network attacks. Additional topics: cryptography, public key infrastructure, standards and protocols, impact of physical security on network security, infrastructure security, remote access, wireless and instant messaging, intrusion detection and network baselines. A scenario-based curriculum describing a start-up company in which the students are "employed" and their roles within that company will also be incorporated in the class. Coverage of both CompTIA's Security+ certification exam and the (ISC)2 SSCP certification, which focuses on best practices, roles, and responsibilities of security experts, is integral to the course.

CSS 126. Dreamweaver (4)  
Credit/No Credit 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, JavaScript and Dreamweaver dynamic page components. Students will be introduced to the web authoring environment, the use of web design tools and best practices. Students will gain experience and skills in creating web sites, as well as their interactive multimedia components.

CSS 127. Flash Design (4)  
Credit/No Credit 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.

CSS 148.1 Adaptive Computer Keyboarding (1)  
Credit/No Credit 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.

CSS 148.2. Adaptive Word Processing (1.5)  
Credit/No Credit 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.

CSS 148.3 Adaptive Internet Literacy (1)  
Credit/No Credit 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.

CSS 150.15. Word Processing (3)  
Credit/No Credit 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/command 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.

CSS 150.15A. Word Processing Level I (1.5)  
Credit/No Credit 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.

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.
CSS150.15B. Word Processing
Level II (1.5)
Credit/No Credit Option
Prerequisite: CSS 150.15A with a grade of C or better.
Advisory: Recommended keyboarding skill of 30 wpm for 5 minutes with 5 fewer errors.
Lec 1 Hr; Lab 1.5 Hrs
Semesters Offered: Variable

Use of word processing features/commands to create and edit business documents using a computer. Not open to students who have completed BUS/CSS 150.15.

CSS150.25. Electronic Spreadsheets (3)
Credit/No Credit Option
Advisory: Keyboarding speed of 25 words a minute recommended.
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable

The use of spreadsheet features/commands to create and edit electronic spreadsheets using a computer. Not open to students who have completed BUS 150.25.

CSS159.15A. Word Processing – Module I (.5)
Credit/No Credit Only
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)
Credit/No Credit 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

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.

CSS169. Computer Maintenance and Repair (4)
Lec 3 Hrs; Lab 3 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.

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.

CSS170A. Windows Networking Essentials (4)
Prerequisite: CSS 48 with a grade of C or better.
Lec 3 Hrs; Lab 3 Hrs
Semesters Offered: Variable

An overview of networking concepts and an introduction to their implementation in the Microsoft Windows operating systems, including tasks and operations involved in the daily management and ongoing support of a network, with hands-on experience to become familiar with the Windows networking user interfaces. Particular emphasis on TCP/IP implementation and Ethernet installation.

CSS170B. Supporting Windows Networks (4)
Prerequisite: CSS 170A with a grade of C or better.
Lec 3 Hrs; Lab 3 Hrs
Semesters Offered: Variable

This course provides the knowledge and skills needed to install and configure Microsoft Windows Network Operating Systems, including installation as a stand-alone operating system and as a network client, and installation and configuration of Windows Server as a network file server. Security, printing, performance, optimization, and disaster recovery are also covered.

CSS200. Computer Skills Acquisition
Lab (.25-1)
Credit/No Credit 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 BUS 200.

CSS201.1. Introduction to the Computer Center and the Internet (.5)
Credit/No Credit Only
Semesters Offered: Variable

Orientation to the Hartnell College Computer Center and the use of its technology. Introduction to the network environment, use of the Internet and advanced e-mail features, and user policies and guidelines.

CSS205. Intro. to Microcomputers (1)
Credit/No Credit Option
Lec .5 Hrs; Lab 1.5 Hrs
Semesters Offered: Variable

An introduction to microcomputers and their use. Topics include operation of a microcomputer and peripheral equipment, brief introduction to keyboarding skills, and an introduction to the use of Windows, Internet, and microcomputer applications.

CSS210.48. Computer and Information Literacy Lab (.5-1.5)
Credit/No Credit Only
Corequisite: CSS 48
Semesters Offered: Variable

Directed practice in understanding and applying applications concepts taught in the CSS-48 course.
CON50. Residential Construction:  
**Rough Frame (6)**  
**Credit/No Credit 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)**  
**Credit/No Credit Option**  
Lec .75 Hr; Lab 1 Hr  
**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)**  
**Credit/No Credit Option**  
Lec .75 Hr; Lab 1 Hr  
**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)**  
**Credit/No Credit Option**  
Lec .75 Hr; Lab 1 Hr  
**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)**  
**Credit/No Credit 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)**  
**Credit/No Credit Option**  
Lec .7 Hr; Lab 1 Hr  
**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)**  
**Credit/No Credit Option**  
Lec .7 Hr; Lab 1 Hr  
**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)**  
**Credit/No Credit Option**  
Lec .7 Hr; Lab 1 Hr  
**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)  
**Credit/No Credit 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)  
**Credit/No Credit 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)  
**Credit/No Credit 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)  
**Credit/No Credit 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)  
**Credit/No Credit 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)  
**Credit/No Credit 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]  

**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.
CON70. Residential Plumbing (3)  
**Credit/No Credit Option**  
*Lec 2 Hrs; Lab 3 Hrs*  
**Semesters Offered:** Variable  
This course is a study 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)  
**Credit/No Credit Option**  
*Lec 2 Hrs; Lab 3 Hrs*  
**Semesters Offered:** Variable  
This course is a study 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)  
**Credit/No Credit 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)  
**Credit/No Credit 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.  
[CSU]

CON102. Carpentry Skills (4)  
**Credit/No Credit 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)  
**Credit/No Credit 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)  
**Credit/No Credit 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.

CON115. 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

Credit/No Credit 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

Credit/No Credit 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]
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.
COUNSELING

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.

COU45. Special Projects (.5-3)

Credit/No Credit 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)

Credit/No Credit Option

Lec 3 Hrs

Semesters Offered: Variable


[CSU; UC; IGETC AREA 6]

COU81. American Sign Language II (3)

Credit/No Credit Option

Prerequisite: Counseling 80 or with a grade of "C" or better.

Lec 3 Hrs

Semesters Offered: Variable

Continuation of Counseling 80. Drill 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)

Credit/No Credit 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)

Credit/No Credit 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)

Credit/No Credit 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.
LSK90. Memory Skills (1)  
Credit/No Credit 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)  
Credit/No Credit 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)  
Credit/No Credit 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)  
Credit/No Credit 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)  
Credit/No Credit 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)  
Credit/No Credit 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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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.
DRA50. Intro. to Drafting and Design (3)
**Credit/No Credit Option**
Lec 2 Hrs; Lab 3 Hrs
**Semesters Offered:** Variable
This course introduces graphics as a communication tool used in a variety of industries such as, architecture, engineering, interior design, and construction. Emphasis placed on design principles and processes involved in engineering and architectural fields. Topics include technical sketching, lettering, line types, applied geometry for graphic representation, problem solving, orthographic projection and pictorial projections including: perspective, axonometric and oblique. Basic dimensioning and sectioning with adherence to drafting standards will be covered.
[CSU]

DRA52. Introduction to AutoCAD (3)
**Credit/No Credit Option**
**Advisory:** Concurrent enrollment in or completion of DRA-50 is recommended.
Lec 2 Hrs; Lab 3 Hrs
**Semesters Offered:** Variable
This course introduces computer-aided drafting (CAD) and examines the hardware that makes up a CAD workstation. It also covers the operating system (Microsoft Windows) that enables the equipment to function as a unit. The course shows how to use AutoCAD to set up drawings and construct lines, circles, arcs, other shapes, geometric constructions, dimensioning, and text. Students will use display and editing techniques as well, to obtain information about their drawings, and work with drawing files. This course also covers recommended drafting standards required for proper drawings with AutoCAD.
[CSU]

DRA53. Advanced AutoCAD (3)
**Credit/No Credit Option**
**Prerequisite:** DRA 52 with a grade of C or better.
Lec 2 Hrs; Lab 3 Hrs
**Semesters Offered:** Variable
Builds on the knowledge acquired in Introduction to AutoCAD. Examines advanced dimensioning, blocks and attributes, section views, external references, multi-view layouts, command aliases, scripts, and object linking and embedding. Students will learn how to apply advanced dimensioning, create section lines and graphic patterns, design symbols and attributes for multiple uses, and create sheet sets. Covers recommended drafting standards and practices, for the proper drawing preparation with AutoCAD.
[CSU]

DRA54. AutoCAD 3D Modeling (2)
**Credit/No Credit Option**
**Prerequisite:** DRA53, Adv. AutoCAD with a grade of C or better.
Lec 1 Hrs; Lab 3 Hrs
**Semesters Offered:** Variable
This course focuses on three-dimensional concepts and features. AutoCAD software is used to generate wireframes, surface models, and solid models, which can be used for engineering analyses and presentation. This course provides a comprehensive study of the details and procedures used to transform two-dimensional drawings into three-dimensional models. The course also includes the procedures for turning models into the types of detailed drawings required for the manufacturing or construction industry.

DRA56. Computer-Aided Electronic Drawing (3)
**Credit/No Credit Option**
**Semesters Offered:** Variable
This class will utilize the AutoCAD or similar software to create the electronic drawings. The drawings will include the electronic diagrams layouts, schematics, elementary circuits, cabling/wiring diagrams, printed circuits, integrated circuits drawings and packaging.
[CSU]

DRA58. Computer-Aided Mechanical Drafting (3)
**Credit/No Credit Option**
**Advisory:** Concurrent enrollment or completion of DRA-50, DRA-52.
Lec 2 Hrs; Lab 3 Hrs
**Semesters Offered:** Variable
An advanced study of orthographic projection with precision dimensioning. Includes tolerance and fit, geometric tolerance, different types of sectional views, and fastening devises for manufacturing industries. Emphasis placed on modern and applied drafting and methods established by the American National Standard Institute (ANSI). Computer aided drafting and design tools such as AutoCAD and Solidworks will be used.
[CSU]

DRA64. Industrial Print Reading (2)
**Credit/No Credit Option**
**Lec 2 Hrs**
**Semesters Offered:** Variable
Fundamentals of interpreting and understanding drawings used in engineering, industry, and construction.
[CSU]

DRA66. Introduction to Geographic Information Systems (GIS) (4)
**Credit/No Credit Option**
**Lec 3 Hrs, Lab 1 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. Includes hands-on exposure to computers and state of the art GIS application and software. GIS software package is provided during laboratory. (Not open to students who have previously completed AGR 66, CSS 66).

DRA70. Introduction to Architectural Drawing and Design (3)
**Credit/No Credit Option**
**Advisory:** DRA 50, or one year of high school drafting is recommended.
Lec 2 Hrs; Lab 3 Hrs
**Semesters Offered:** Variable
This course covers fundamental techniques and standards of architectural design. Topics include the principles, concepts, methods, and skills pertaining to the freehand and drafted construction of drawings employing orthographic, isometric, oblique, and perspective drawing systems to represent ideas, objects, and environments. Introduction to building code, the preparation of plot plan, floor plan, dimensioning, elevation plan, and the concepts of residential building design and perspective presentation are covered. This course studies room relations in residential planning and how they are influenced by their surrounding environments. The principles and theory of two-and three-dimensional visual and architectural design are included.
[CSU]

DRA71. Computer-Aided Architectural Drawing (3)
**Credit/No Credit Option**
**Prerequisite:** DRA 70 with a grade of C or better.
**Advisory:** DRA 52
Lec 2 Hrs; Lab 3 Hrs
**Semesters Offered:** Variable
Students will use AutoCAD and/or other advanced architectural related application software in preparation of working drawings including site plan, floor plan, elevation, foundation and other necessary details for the residential buildings.
[CSU]

DRA72. Advanced Computer-Aided Architectural Drawing (3)
**Credit/No Credit Option**
**Prerequisite:** DRA 71 with a grade of C or better.
Lec 2 Hrs; Lab 3 Hrs
**Semesters Offered:** Variable
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)
**Credit/No Credit 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)
**Credit/No Credit Option**
Supervised study and laboratory practice involving special problems in drafting. DRA 50 and DRA 52 or equivalent experiences are recommended.

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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. Child Study (3)
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
Directed observation of patterns of behavior in young children who are enrolled in an educational program; writing anecdotal records of children's behavior; discussion and evaluation of records; lectures, and techniques of studying children. Meets CDA functional areas: 5, 6, 7, 8, 9, 13. [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. Student 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]
ECE25. Preschool Learning Problems (1)  
**Lec 1 Hr**  
**Seminars Offered:** Variable  
Developing an understanding of the role of the teacher as a knowledgeable observer, skillful 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**  
**Seminars 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**  
**Seminars 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)  
**Seminars 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 Hr**  
**Seminars 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**  
**Seminars 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 Hrs**  
**Seminars 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 reflection 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:** Completion of ECE 1, ECE 2, ECE 3, ECE 101, and FCS 14 with a grade of C or better.  
**Lec 3 Hrs**  
**Seminars Offered:** Variable  
The philosophy and principles of program planning, budgeting and personal administration used in the supervision and management of preschool and day care programs.  
[CSU]

ECE70B. Advanced Administration and Supervision of Child Development Programs (3)  
**Prerequisite:** ECE 70A with a grade of C or better.  
**Lec 3 Hrs**  
**Seminars Offered:** Variable  
Advanced students of Early Childhood Education, supervisors and administrators of Child Development Programs will extend their skills and resources for development in leadership positions. Staff development, networking, program evaluation and improvement, staff and family counseling, advocacy and professionalism in the Child Development field are among topics which are addressed in this course. Meets CDA Functional areas 1-13.  
[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**  
**Seminars 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**  
**Seminars 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**  
**Seminars 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**  
**Seminars 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 in 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**  
**Seminars 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 in program planning and implementation which encourages social growth.  
[CSU]
ECE101. Orientation: Early Childhood Education (1)

Lec 1 Hr
Semesters Offered: Variable

An exploration of student needs, interests, and capabilities in relation to job expectations, job opportunities, and levels of education needed to qualify for various career levels in the fields of early childhood education (ECE).

ECE112. Family, Child and Community (3)

Lec 3 Hrs
Semesters Offered: Variable

Course focuses on social influences that affect the child's socialization in a constantly changing, culturally diverse world. Topics include issues of family dynamics, child care, school, neighborhood, and community agencies that support children and families of diverse backgrounds.

ECE195 A-N. Topics in ECE: Curriculum (.5-3)

Credit/No Credit Only
Semesters Offered: Variable

Topics organized as workshops, conferences, and/or seminars organized on specific activities, resources, and current trends in curriculum and learning environments in response to the current training needs and interests of ECE educators, students, and community employers.

A. Developmentally Appropriate Materials
B. Classroom environments that promote learning
C. Music Experiences
D. Music Curriculum
E. Movement Experiences
F. Math/Science Experiences
G. Emergent Curriculum
H. Large and Small Group Experiences
I. Sensory Integration and Learning
K. Cultural Diversity Issues
L. Multicultural curriculum
M. Activities to promote literacy
N. Learning centers for ECE programs

ECE196 A-J. Topics in ECE: Program Management (.5-3)

Credit/No Credit Only
Semesters Offered: Variable

Topics organized as workshops, conferences, and/or seminars organized on current training needs and interests of early childhood educators, students, and community employers.

A. Working with parents
B. Working with children and families at high risk
C. Staff relations
D. Learning Environments
E. Dealing with stress-related situations
F. Staffing issues in ECE programs
G. Emergency preparedness
H. Budgets and finances of ECE programs
I. Facilities: Health and Safety, Design, Playgrounds
J. Safety Reviews

ECE197 A-G. Guidance, Observation, Assessment of Children (.5-3)

Credit/No Credit Only
Semesters Offered: Variable

Topics organized as workshops, conferences, and/or seminars organized on guidance, discipline, observations, assessments, evaluations that respond to current training needs and interests of ECE educators, students, and community employers.

A. Authentic Assessment
B. Desired Results
C. Behavior Management and Conflict Resolution
D. Working Effectively with children with special needs
E. Helping Children Cope with Stress
F. How and When to Make Referrals for community resources and agencies
G. Child Developmental needs of children from diverse backgrounds

ECE198 A-I. Topics in ECE: Curricular Approaches (.5-3)

Credit/No Credit Only
Semesters Offered: Variable

Topics organized as workshops, conferences, and/or seminars organized on specific activities, resources, and current trends impacting ECE programs, in response to training and interests of ECE educators, students, and community employers.

Students may enroll in ECE 198 A-I for a maximum of 4 times.

ECE199. Selected Topics in E.C.E. (.3-2)

Credit/No Credit Only
Semesters Offered: Variable

In-service workshops or seminars of selected topics to provide knowledge and skills of important contemporary issues about methodology, curricular activities, child development and parenting for ECE educators, students, and parents. Seminars may be offered for 0.5 unit, 1.0 or 2.0 units depending on the content of the selected topic, community demand, or ECE workforce development need. Students may enroll in ECE-199 for a maximum of 4 times provided the topic is different.

ECE200. Parent Enrichment (.3-1)

Credit/No Credit Only
Semesters Offered: Variable

This course serves to introduce parents to the Child Development Center as a facilitator of healthy intellectual and psychosocial development of children. Each student will become familiar with the developmental growth of the child during the early years with methods to enhance this growth. May be repeated for a total of 3 units.

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; CAN FCS 14]

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.
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; CAN ECON 2; 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; CAN ECON 4; 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]
ELE52. Electronic Fundamentals (5)  
**Semesters Offered:** Variable  
Introduces basic electrical laws and their application to electrical and electronic systems. Labs are organized to present experience with electrical and electronic devices.  
[CSU]

ELE54. Electronic Devices and Circuits (5)  
**Advisory:** Electronics 52 or equivalent knowledge of electronics.  
**Lec 4 Hrs; Lab 3 Hrs**  
**Semesters Offered:** Variable  
A study of semiconductors in circuits including, bipolar and field effect transistors, operational amplifiers, SCRs (Silicon Controlled Rectifiers), triacs, special diodes, opto-isolators, and solid state relays.  
[CSU]

ELE55. Intro. to Digital Electronics (3)  
**Credit/No Credit Option**  
**Advisory:** Knowledge of basic algebra including simple equations, distributive associative laws and using tables as covered in Math 151 or Math 121.  
**Lec 2 Hrs; Lab 3 Hrs**  
**Semesters Offered:** Variable  
Introduction to digital circuit including gates, flops, counters, and Programmable Logic Arrays (PLA) using Boolean algebra, binary number system, Karnaugh maps, timing diagram, and computer emulators.  
[CSU]

ELE56. Advanced Circuit Analysis (3)  
**Credit/No Credit Option**  
**Advisory:** Completion of ELE 52, ELE 151, MAT 151 or MAT 121, or equivalent experience reading graphs, using scientific calculators, and reading engineering notation.  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
A study of DC network and reactive circuits including analysis by trigonometry, complex variables, phasors, logarithms (Bode Plots) used in diagnosis of electronic problems.  
[CSU]

ELE57. Instruments and Controls (5)  
**Advisory:** ELE 52, Electronic Fundamentals, or basic knowledge of electronics.  
**Lec 4 Hrs; Lab 3 Hrs**  
**Semesters Offered:** Variable  
A study of instruments and controls used in processing and manufacturing including motor controls, and sensors, PLC programming and interfacing.  
[CSU]

ELE57.15 Instruments and Controls Programming (2)  
**Advisory:** ELE 52, Electronic Fundamentals, or equivalent knowledge of electronics. ELE 57 or equivalent knowledge of PLC programming.  
**Lec 1.6 Hrs; Lab 1.2 Hrs**  
**Semesters Offered:** Variable  
This course provides advanced and current PLC programming concepts. Topics include introduction to Analog Variable handing, using comparison instructions, math instructions, FIFO and LIFO instructions, program flow control, interrupts, counters, and faults and error codes. Not open to students who have completed ELE 57 prior to May 2004.  
[CSU]

ELE65. Microcontroller Programming and Interfacing (5)  
**Credit/No Credit Option**  
**Advisory:** Knowledge of digital electronics including, gates, flops, counters, PLAs, and Boolean algebra, as covered in ELE 55, and assembly language programming including binary and hexadecimal number systems, loops, conditional branches, flags, addressing and indexing as covered in ELE 198, CIS 3 or CSS 2B.  
**Lec 4 Hrs; Lab 3 Hrs**  
**Semesters Offered:** Variable  
Designing, constructing, and programming the MC68HC11 microcomputer interfaces.  
[CSU]

ELE145. Special Projects (.5-2)  
**Credit/No Credit Option**  
**Prerequisite:** Second semester freshman or sophomore standing in Electronics.  
**Semesters Offered:** Variable  
Supervised study and laboratory practice in solving special problems in electronics technology, communication, computers and other fields not covered in basic curriculum. May be repeated for a maximum of 6 units.

ELE150. Electronic Fabrication Practicum (1)  
**Credit/No Credit Option**  
**Advisory:** Concurrent enrollment in or completion of ELE-52 is recommended.  
**Lab 3 Hrs**  
**Semesters Offered:** Variable  
Covers techniques used in electronics fabrication. Students will learn to solder connections, to construct point-to-point connections by soldering and wire wrapping, to use circuit board software to make printed circuit boards, to construct metal and plastic cases and panes using machine and hand tools.

ELE151. D.C. Circuit Analysis (2.5)  
**Lec 2.5 Hrs**  
**Semesters Offered:** Variable  
Introduction to D.C. circuits applying Ohm's law, Kichhoff's laws, and equivalent circuits to analyze D.C. circuits. Introduction to concepts of energy and power distribution, and motor efficiency.

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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 of exposition, and reading of selected works from a variety of academic and cultural contexts, and writing from research. Students with write a minimum of 6,500 words in graded assignments.
[CSU; UC; CAN ENGL 2; CAN ENGL SEQ A with ENG 1A & 1B; 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
English 1B is an introductory literature survey course that focuses on reading and writing about four basic literary genres: drama, poetry, short story, and the novel. The course provides instruction and practice in critical thinking and forming literature based arguments. This course introduces the major schools of literary and cultural theory common to study in the humanities. Students will write a total of 6,000 words including essays, journals, and homework assignments.
[CSU; UC; CAN ENGL 4, CAN ENGL SEQ A with ENG 1A & 1B; 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 into 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; CAN ENGL 20; 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 Siko. 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 3, 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; AREA C2]

ENG31 Beginning Creative Writing/Introduction to Magazine Publishing (3)
Prerequisite: Eligibility for Eng. 1A.
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; CAN ENGL 6; CSU-GE, AREA C2]

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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  
**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 interrelationship 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 interrelationship 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; IGETC, AREA 3]  

ENG44A. World Literature I (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 ancient times through the Renaissance. 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]  

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]  

ENG44C. World Literature III (3)  
**Prerequisite:** Completion of Eng. 1B, 1C 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 19th to the 20th century. Readings will include poetry, prose, and drama and religious writings of this period, chosen for their literary, historical, and cultural significance.  
[CSU; UC; CAN ENGL 14, CAN ENGL SEQ C with ENG 47A & 47B; CSU-GE, AREA C2; IGETC, AREA 3]  

ENG44D. World Literature IV (3)  
**Prerequisite:** Completion of Eng. 1A with a grade of C or better.  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
This course is a study of world literature from the 19th to the 20th century. Readings will include poetry, prose, and drama and religious writings of this period, chosen for their literary, historical, and cultural significance.  
[CSU; UC; CAN ENGL 16, CAN ENGL SEQ C with ENG 47A & 47B; 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; CAN ENGL 8, CAN ENGL SEQ B with ENG 46A & 46B; CSU-GE; AREA C2; IGEC, 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 culture significance.  
[CSU; UC; CAN ENGL 10, CAN ENGL SEQ B with ENG 46A & 46B; CSU-GE; AREA C2; IGEC, AREA 3]  

ENG46C. Survey of English Literature III (3)  
**Prerequisite:** Completion of Eng. 1A with a grade of C or better.  
**Lec 3 Hrs**  
**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]  

ENG47A. Survey of American Literature I (3)  
**Prerequisite:** Completion of Eng. 1A with a grade of C or better.  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
Survey of American literature from its origins to the late 19th century. Readings will include poetry, prose, drama, and religious writings of this period, chosen for their literary, historical, and cultural significance.  
[CSU; UC; CAN ENGL 14, CAN ENGL SEQ C with ENG 47A & 47B; CSU-GE, AREA C2; IGETC, AREA 3]  

ENG47B. Survey of American Literature II (3)  
**Prerequisite:** Completion of ENG 1A with a grade of C or better.  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
Survey of American literature from the late 19th century to the present. Readings will include poetry, prose, and drama of this period, chosen for its literary, historical, and cultural significance.  
[CSU; UC; CAN ENGL 16, CAN ENGL SEQ C with ENG 47A & 47B; CSU-GE, AREA C2; IGETC, AREA 3]  

ENG48. Children’s Literature (3)  
**Advisory:** Completion of ENG 1A with a grade of C or better.  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
This is a literature course, focused on the literary analysis of books written for school-age children and adolescents. It introduces the history, forms, and functions of literature for children, and provides a variety of critical tools for reading, discussing, and writing about literary as well as pedagogical discourses. Readings, lectures, class discussion, and writing assignments will develop students’ awareness of social and pedagogical issues that impact the use of children’s literature both in and outside the classroom, their ability to read texts carefully and with attention to literary merit, and their ability to write clear, thoughtful and persuasive prose.  
[CSU]  

ENG50. Film Appreciation To 1960 (3)  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
This course is 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 the beginning of the cinema to 1960. 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]
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]

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)
   Credit/No Credit 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)
   Credit/No Credit 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)
   Credit/No Credit 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)
   Credit/No Credit 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)
   Credit/No Credit 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.
   An open entry, open exit, multi-media course that provides students a supervised, individualized program of text or computerized activities focusing on developing and improving specific grammar and/or writing skills such as spelling, grammar, punctuation, sentence structure, paragraph and essay structure, and developing research papers.

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)
   Credit/No Credit Only
   Advisory: Eligibility for, or concurrent enrollment in ENG 253.
   Lab 3 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, 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.

ENG254. Writing (.5)
   Credit/No Credit Only
   Lab 1.5 Hrs
   Semesters Offered: Variable
This course features individualized, open-entry/open-exit lab instruction in support of the ENG 253 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.

ENG57. College Reading and Study Skills I (3)
   Credit/No Credit 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)
   Credit/No Credit 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)
   Credit/No Credit 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.
ESL101. English for Academic Purposes 1 (5)
Credit/No Credit 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.

ESL101FL. Composition and Grammar for ESL - Lab (1)
Credit/No Credit Only
Prerequisite: Eligibility for ESL 101F.
Lab 3 Hrs
Semesters Offered: Variable
Through individualized, open-entry/open-exit lab instruction that supports the ESL 101F curriculum, ESL 101FL supplements 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. This course is designed for advanced level ESL students.

ESL125. Grammar and Writing I (5)
Credit/No Credit 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 high-beginning level ESL students. Simple present and past verb tenses, question forms, parts of speech, and simple sentence writing skills are stressed. Listening and speaking will also be practiced.

ESL125L. Grammar and Writing I - Lab (1)
Credit/No Credit 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)
Credit/No Credit 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 per week in the Language Lab.

ESL128. Reading and Vocabulary I (4)
Credit/No Credit Option
Corequisite: ESL 135L
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)
Credit/No Credit Option
Prerequisite: ESL 125 with a grade of C or better or placement by STAAR and/or multiple measures.
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)
Credit/No Credit 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 for Intermediate English (3)
Credit/No Credit Option
Advisory: Eligibility for English 135 or concurrent enrollment.
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
Listening and conversation practice, at the intermediate level, to promote the development of listening and speaking competency. This class requires 3 hours per week in the Language Lab.

ESL138. Reading and Vocabulary 2 (4)
Credit/No Credit 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)
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)
Credit/No Credit 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 Practice for Advanced English (3)
Credit/No Credit Option
Advisory: ESL 136
Lec 2 Hrs; Lab 3 Hrs
Semesters Offered: Variable
Listening and conversation practice, at the advanced level, to promote the development of listening and speaking competency. This class requires 3 hours per week in the Language Lab.

ESL148. Reading and Vocabulary 3 (3)
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.
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, comple complex sentences, and paragraph writing skills are stressed. Listening and speaking will also be practiced.  

ESL155L. Grammar and Writing 4-LAB  (1)  
**Credit/No Credit Only**  
**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)  
**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 skills.  

ESL165. English for Academic Purposes I  (5)  
**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. Paragraph and Basic Essay Writing for ESL - Lab  (1)  
**Credit/No Credit Only**  
**Prerequisite:** Eligibility for ESL 165.  
**Lab 3 Hrs**  
**Semesters Offered:** Variable  
Individualized, open-entry/open-exit lab instruction in support of the ESL 165 curriculum. ESL 165L develops English proficiency in writing, composition and critical reading skills.  

ESL168. Intensive Reading for the ESL Student  (3)  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
Designed to help ESL students to improve their reading skills. Emphasis is on phonics, word analysis, vocabulary development and comprehension. Students enrolled in ESL 135, 145, 155, or 165 will be placed at their appropriate instructional level in this ESL reading program. ESL 188 not open to those students who have completed English 188.  

**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 multi-disciplinary 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]**  

**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]**  

**ETH12. 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]**  

**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 3]**  

**ETH30. 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]**  

**ETH31. 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]***
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; CAN FCS 14; 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; CAN FCS 2; CSU-GE, AREA E]

FRN1. Elementary French I (5)

Credit/No Credit 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; CAN FREN 2, CAN FREN SEQ A with FREN 1 & 2; IGETC AREA 6; CSU-GE, AREA C2]

FRN2. Elementary French 2 (5)

Credit/No Credit 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; CAN FREN 4, CAN FREN SEQ A with FREN 1 & 2; CSU-GE, AREA C2; IGETC, AREA 6]

FRN3. Intermediate French (4)

Credit/No Credit 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; CAN FREN 8, CAN FREN SEQ B with FREN 3 & 4; CSU-GE, AREA C2, IGETC, AREA 6]

FRN4. Intermediate French (4)

Credit/No Credit 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; CAN FREN 10, CAN FREN SEQ B with FREN 3 & 4; CSU-GE, AREA C2, IGETC, AREA 6]
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.
HED2. Individual Health (3)
Lec 3 Hrs
Semesters Offered: Variable
Individual health and its relationship to community, and national health problems. [CSU; UC; CSU-GE, AREA E]

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]

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]

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 qualitative and quantitative 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-on” 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 21 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 Immunohematology Practicum (4)
Prerequisite: HES 21 and 21L with a grade of C or better.
Corequisite: HES 23
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]

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.
HESA04. Clinical Chemistry I (3)
**Prerequisite:** HES 10 and HES 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 in the semester following successful completion of HES 40 and HES 40L.

[CSU]

HESA04L. 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 pre-analytical 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]

HESA41. Clinical Chemistry II (3)
**Prerequisite:** HES 40 and HES 40L with a grade of C or better.
**Corequisite:** HES 41L
**Advisor:** 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]

HESA41L. Clinical Chemistry II Lab (1)
**Prerequisite:** HES 40, HES 40L with a grade of C or better.
**Corequisite:** HES 41
**Advisor:** Completion of HES 43 within 9 months of the beginning of this course and before completing this course.

**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.

[CSU]

HESA43. 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.

[CSU]

HESA53. 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.

[CSU]

HESA60. Clinical Microbiology (3)
**Prerequisite:** HES 10, HES 11 with a grade of C or better.
**Corequisite:** HES 60L
**Advisor:** 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.

[CSU]

HESA60L. Clinical Microbiology Lab (1)
**Prerequisite:** HES 10, HES 11 with a grade of C or better.
**Corequisite:** HES 60
**Advisor:** Admission to MLT Program. Completion of HES 63 within six months of completing this course.

**Lab** 3 Hrs

Introduces the various techniques and safety procedures for 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.

[CSU]

HESA63. Clinical Microbiology Practicum (5)
**Prerequisite:** HES 60 and HES 60L with a grade of C or better.

**Lab** 15 hrs

**Semesters Offered:** Variable

Provides entry-level clinical laboratory practical 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.

[CSU]

HESA70. Clinical Hematology (3)
**Prerequisite:** HES 10 and HES 11 with a grade of C or better.
**Corequisite:** HES 70L
**Advisor:** 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.

[CSU]
HE597. Clinical Hematology Lab (1)
Prerequisite: HES 10 and HES 11 with a grade of C or better.
Corequisite: HES 70
Advisory: Completion of HES 73 within six months of completing this course.
Lab 3 Hrs
Semesters Offered: Variable
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.
[CSU]

HE597L. Clinical Coagulation Lab (.5)
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.
Lab 1.5 Hrs
Semesters Offered: Variable
This course presents an overview of hemostasis process and coagulation disorders.
[CSU]

HE598. 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]

HE601. 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 any setting 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.

HE610A. Theory of 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.

HE610B. Practicum in Phlebotomy Techniques (1)
Credit/No Credit 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.
HIS4A. Western Civilization A (3)  
Lec 3 Hrs  
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; CAN HIST 2, CAN HIST SEQ A with HIST 4A & 4B; CSU-GE, AREA D5, D6, IGETC AREA 3]

HIS4B. Western Civilization B (3)  
Lec 3 Hrs  
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; CAN HIST 4, CAN HIST SEQ A with HIST 4A & 4B; CSU-GE, AREA D6, IGETC AREA 3]

HIS5A. World History A (3)  
Lec 3 Hrs  
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]

HIS5B. World History B (3)  
Lec 3 Hrs  
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]

HIS6. History of Mexico (3)  
Lec 3 Hrs  
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]

HIS10. History of California (3)  
Advisory: See Below.  
Lec 3 Hrs  
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 ecolllege.  
[CSU; UC; CSU-GE, AREA D6, IGETC AREA 3]

HIS17A. United States History A (3)  
Lec 3 Hrs  
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; CAN HIST 8, CAN HIST SEQ B with HIST 17A & 17B; CSU-GE, AREA D6, IGETC AREA 3]

HIS17B. United States History B (3)  
Lec 3 Hrs  
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; CAN HIST 10, CAN HIST SEQ B with HIST 17A & 17B; CSU-GE, AREA D6, IGETC AREA 3]

HIS21. Social and Political Histories of the United States (4)  
Lec 4 Hrs  
Semesters Offered: Variable  
A social and political history of the United States from the Indigenous Past to Reconstruction 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]

HIS40. History of Women in the U.S. (3)  
Lec 3 Hrs  
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; 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 or concurrent enrollment in History 4A, 4B, 17A, or 17B.  
[CSU]

HIS46A. Race and Ethnicity in American History A (3)  
Lec 3 Hrs  
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]

HIS46B. Race and Ethnicity in American History B (3)  
Lec 3 Hrs  
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 Reconstruction to the present.  
[CSU]

HIS47. Religions of the World (3)  
Lec 3 Hrs  
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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HIS48. African-American History and Culture (3)
Credit/No Credit Option
Lec 3 Hrs
Seminesters 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
Seminesters 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
Seminesters 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
Seminesters 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]

HUS1. Intro. to Human Services (3)
Lec 3 Hrs
Seminesters Offered: Variable
An overview of paraprofessional fields in Human Services with special emphasis on the areas of responsibilities, employment, settings and opportunities, and educational requirements. Opportunities will be provided for the student to explore his/her own needs, interest and capabilities in relation to job expectations.
[CSU]

HUS2. Intro. to Group Process (3)
Lec 3 Hrs
Seminesters Offered: Variable
The individual will observe, study and participate in group dynamics to better evaluate relationships, to improve communication, and resolve conflict. Learning will primarily be through group experience and lectures.
[CSU]

HUS3. Intro. to Social Casework (3)
Lec 3 Hrs
Seminesters Offered: Variable
Overview of the contemporary development of social work. Discussion of the two major theories of social casework: psychosocial perspective (system theory approach) and the functional approach. Utilization of social casework concepts by the human service worker.
[CSU]

HUS45. Special Projects (1-3)
Seminesters Offered: Variable
Individualized research or specialized experience in a specific area of Human Services.
[CSU]

HUS61. Family Dev. & Worker Empowerment (1.5)
Credit/No Credit Option
Lec 1.5 Hrs
Seminesters Offered: Variable
Family Development and worker empowerment prepares students for working with families to attain self-reliance and interdependence with their communities.
[CSU]

HUS63. Building Mutually Respectful Relationships with Families: Communication with Skill and Heart
Credit/No Credit Option
Lec 1.5 Hrs
Seminesters Offered: Variable
The skills and knowledge needed for family workers to promote family development and the ability to communicate effectively and respectfully with families.
[CSU]

HUS67. On-going Assessment and Home Visiting (1.5)
Lec 1.5 Hrs
Seminesters Offered: Variable
Basic principles of empowerment-based assessment and home visiting.

HUS69. Specialized Services for Families (1)
Lec 1 Hr
Seminesters Offered: Variable
The relationship between specialized services and family self-reliance. Helping families use specialized services in order to become self-reliant.

HUS71. Facilitation Skills and Collaboration (1)
Lec 1 Hr
Seminesters Offered: Variable
Facilitation of family conferences, support groups and community meetings. The uses of collaboration in family case management.

HUS72. Foster Child Care (1)
Credit/No Credit Only
Prerequisite: HUS 61, 63, 65, 67, 69, 71 with a grade of C or better.
Lec 2.0 Hrs
Seminesters Offered: Variable
A collection of student work reflecting achievement of outcomes in the Family Development Credential Program. The work includes student-self-analysis and is presented in portfolio form.
[CSU]

HUS201. Foster Child Care (1)
Lec 1 Hr
Seminesters Offered: Variable
Overview of basic knowledge, skills and sensitivity needed in foster parenting. Emphasis on human needs and roles. Survey of agency policies regarding foster care.

HUS220. Introduction to Eligibility Worker Procedure (3)
Credit/No Credit Only
Lec 3 Hrs
Seminesters Offered: Variable
Study of regulations and practices relevant to the duties of an Eligibility Worker.

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INS250. Tutor Training (.3-1)  
Credit/No Credit 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.

IDS1. Boronda Study Group (3)  
Credit/No Credit 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)  
Credit/No Credit 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.

JPN10. Japanese Language and Culture I (5)  
Credit/No Credit 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; CSU-GE, AREA C2]

JPN11. Japanese Language and Culture II (5)  
Credit/No Credit 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; CSU-GE, AREA C2]
LIB2. Introduction to Using the Academic Library (1)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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:
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]

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.
MAT2. Calculus for Managerial, Life, and Social Sciences (4)
Prerequisite: Math 123 with a grade of "C" or better.
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; CAN MATH 30; CAN MAT 34; 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; CAN MATH 18, CAN MATH SEQ B with MAT 3A & 3B; CAN MAT SEQ C with MAT 3A & 3B & 3C; CAN MAT 3; CAN-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; CAN MATH 20, CAN MATH SEQ B with MAT 3A & 3B; CAN MAT SEQ C with MAT 3A & 3B & 3C; CAN-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; CAN MATH 22, CAN MAT SEQ C with MAT 3A & 3B & 3C; CAN-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; CAN MATH 26; CAN MAT 34; 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; CAN MATH 24; CAN MAT 3; CAN-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, number systems, numerical systems, number theory, a variety of mathematical ideas, methods, and methods of proof. Additional topics may include: history of mathematics, geometry, counting techniques, probability and statistics, and calculus concepts.

[CSU; UC; CAN MATH 2; CAN-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; CAN MATH 4; CAN MAT 3; CAN-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, graphic 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; CAN STAT 2; CAN PSY 6; CAN SOC 8; CAN-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; CAN MATH 12; CAN-GE, AREA B4; IGETC, AREA 2]

MAT24. Trigonometry (3)
Prerequisite: Math 122 and Math 123 with a grade of "C" or better.
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; CAN MATH 8; CAN-GE AREA B4]
MAT25. Pre-Calculus (4)

Prerequisite: Math 123 with a grade of C or better.

Lec 4 Hrs

Semesters Offered: Variable

A study of polynomial functions, rational functions, exponential functions and logarithmic functions, graphing techniques, systems of equations, matrices, determinants, parametric equations. This course is designed to prepare students for Math 3A.

[CSU; UC; CAN MATH 10; CSU-GE, AREA B4; IGETC AREA 2]

MAT45. Special Projects (1-4)

Credit/No Credit Option

Semesters Offered: Variable

Described for Science, Technology, Engineering, and Math students who are interested in investigating topics beyond the scope of existing mathematics courses. Students will gain experience with advanced mathematics using project management skills. This course may be taken three times with different or advanced content for a maximum of nine units.

[CSU]

MAT121. Elementary Algebra (5)

Prerequisite: Math 201 or BUS 151.

with a grade of C or better or placement by Hartnell's Assessment.

Lec 5 Hrs

Semesters Offered: Variable

Topics include operations with real numbers, simplifying expressions, solving equations, linear graphing techniques, linear equations and inequalities (both one and two variables), polynomials, factoring, rational expressions, exponents, radicals, and applications. Not open to students who have completed, with a grade of "C" or better, Math 121L2.

MAT121L1. Elementary Algebra (1.25)

Prerequisite: Math 201 or BUS 151.

All prerequisites must be completed with a grade of "C" or better.

Lab 3.75 Hrs

Semesters Offered: Variable

A study of real numbers, algebraic expressions, and applications.

MAT121L2. Elementary Algebra (1.25)

Prerequisite: Math 121L1 with a grade of "C" or better.

Lab 3.75 Hrs

Semesters Offered: Variable

A study of linear equations and inequalities in one variable, graphing and finding linear equations in two variables, and applications.

MAT121L3. Elementary Algebra (1.25)

Prerequisite: Math 121L2 with a grade of "C" or better.

Lab 3.75 Hrs

Semesters Offered: Variable

A study of exponents, polynomials, factoring, and applications.

MAT121L4. Elementary Algebra (1.25)

Prerequisite: Math 121L3 with a grade of "C" or better.

Lab 3.75 Hrs

Semesters Offered: Variable

A study of rational expressions, roots and radicals, and applications. The final examination also covers the content of Math 121L1, 121L2, and 121L3.

MAT122. Plane Geometry (4)

Prerequisite: Math 121 (5 units) with a grade of C or better or Math 123 placement by STAAR.

Lec 4 Hrs

Semesters Offered: Variable

A study of linear equations and inequalities, and applications related to all the functions of intermediate algebra. Not open to students who have completed MAT 123L2, or its equivalent, with a grade of C or better.

MAT123. Intermediate Algebra (5)

Prerequisite: MAT 121 (5 units) with a grade of C or better or MAT 123 placement by STAAR.

Lec 5 Hrs OR Can be Lec/Lab format.

Semesters Offered: Variable

Review of elementary algebra plus more advanced problems of factoring, rational expressions, linear and quadratic equations, functions and graphs, systems of equations and inequalities, exponents, radicals, exponential and logarithmic functions, conic sections, sequences, series and applications related to all the functions of intermediate algebra. Not open to students who have completed MAT 123L2, or its equivalent, with a grade of C or better.

MAT123L1. Intermediate Algebra (1)

Prerequisite: Math 121 (5 Units) with a grade of C or better.

Lab 3 Hrs

Semesters Offered: Variable

A study of linear equations and inequalities in one and two variables, graphs, systems of linear equations and inequalities, and applications of these topics.

MAT123L2. Intermediate Algebra (1)

Prerequisite: Math 123L1 with a grade of C or better.

Lab 3 Hrs

Semesters Offered: Variable

Further study of intermediate algebra. Topics include: Relations and functions, variation, polynomial arithmetic, factoring polynomials, and using factoring to solve polynomial equations.

MAT123L3. Intermediate Algebra (1.5)

Prerequisite: Math 123L2 with a grade of C or better.

Lab 4.5 Hrs

Semesters Offered: Variable

Further study of intermediate algebra. Topics include: Rational expressions and equations, radicals, rational exponents, radical equations, complex numbers, quadratic equations, completing the square, the quadratic formula, quadratic functions, and parabolas.

MAT151L1. Technical Mathematics (1)

Prerequisite: Math 151L1 with a grade of C or better.

Lab 3 Hrs

Semesters Offered: Variable

A study of technical mathematics. Topics include: addition, subtraction, multiplication and division of whole numbers, fractions, and decimals; ratio, proportion, and percent; conversion between decimals and fractions; applications involving arithmetic, ratio, proportion, and percent; and problem solving techniques. A 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.

MAT151L2. Technical Mathematics (1)

Prerequisite: Math 151L1 with a grade of C or better.

Lab 3 Hrs

Semesters Offered: Variable

Further study of technical mathematics. Topics include: Measurement, including metric and English systems of measurement, unit conversions, use of real-world measurement devices; order of operations and evaluation of algebraic expressions; addition, subtraction, multiplication and division of positive and negative numbers and algebraic expressions; scientific notation; solving equations. A 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.

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.

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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 whole numbers, signed numbers, fractions, 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 arithmetic of whole numbers and signed numbers, the order of operations, exponents, perimeter, area, and volume. This course is designed for students who do not meet the entrance requirements for Math 121. This course is not open to students who have completed Math 201.

MAT201L2. Pre-Algebra (1)
Prerequisite: Completion of Math 201L1 with a grade of C or better.
Lab 3 Hrs
*Semesters Offered: Variable*
The arithmetic of fractions and decimals. This course is designed for students who do not meet the entrance requirements for Math 121. This course is not open to students who have completed Math 201.

MAT201L3. Pre-Algebra (1)
Prerequisite: Completion of Math 201L2 with a grade of C or better.
Lab 3 Hrs
*Semesters Offered: Variable*
The arithmetic of 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 201.

MAT205. Individualized Study I (.5)
Credit/No Credit 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)
Credit/No Credit 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.
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)  
**Credit/No Credit 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)  
**Credit/No Credit Option**  
*Lec 3 Hrs*  
**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)  
Corequisite: 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.  
[CSU; UC]  

MUS14. Intermediate Piano (1)  
Prerequisite: Music 13B with a grade of C or better.  
Advisory: Concurrent enrollment in 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 the 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.  
Advisory: Concurrent enrollment in 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]  

MUS17B. Beginning Guitar II (1)  
Prerequisite: Music 17A with a grade of C or better.  
Lec 1 Hr; Lab 2 Hrs  
Semesters 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  
Semesters 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  
Semesters 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)
   Semesters Offered: Variable
   Supervised practice in instrumental or vocal music.
   [CSU; UC]

MUS20. Hartnell College Choir (1)
   Lec 1 Hr; Lab 2 Hrs
   Semesters 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
   Semesters Offered: Variable
   A vocal ensemble devoted to the study and performance of musical literature suited to a small group of singers. Selection of singers 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
   Semesters 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
   Semesters 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
   Semesters 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
   Semesters 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]

MUS23.5. Hartnell Chorale - 21st Century Emphasis (1)
   Advisory: Intended for persons with previous choral experience.
   Lec 1 Hr; Lab 2 hrs
   Semesters 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; UC]

MUS25. Hartnell College Wind Ensemble (1)
   Lec 1 Hr; Lab 2 Hrs
   Semesters Offered: Variable
   A performance group studying literature for the small wind 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]

MUS26. Jazz Ensemble (1)
   Lec 1 Hr; Lab 2 Hrs
   Semesters 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 piano, bass, drums, guitar, saxophone, trumpet or trombone. 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
   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 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
   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 19th century music.
   [CSU; UC]

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; UC]

MUS31. Symphony Orchestra - 18th 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 18th century music.
   [CSU; UC]
MUS34.2. Symphony Orchestra - 19th 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 19th century music.

[CSU; UC]

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]

MUS42. 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]

MUS43 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, an 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; CAN MUS 2; CAN MUS SEQ A; CAN MUS SEQ C; 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; CAN MUS 4; CAN MUS SEQ A; CAN MUS SEQ C 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; CAN MUS 2; CAN MUS SEQ A; CAN MUS SEQ C]

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; CAN MUS 4; CAN MUS SEQ A; CAN MUS SEQ C]

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; CAN MUS 6; CAN MUS SEQ C; 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 chromatic harmony, and introduction 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 chromatic harmonies drawn from 19th Century music literature.

[CSU; UC; CAN MUS 6; CAN MUS SEQ C]

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)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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 Musical in Rehearsal (.5-4)
Credit/No Credit 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 Musical in Performance (.5-3)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit Only
Semesters Offered: Variable
Extensive practice in the development of the revival of a period musical with an emphasis on performance and stage management. Students may enroll in any combination of Music 127 and Theatre Arts 127 a maximum of four times.

MUS128. Musical Theatre-Revival Musicals in Performance (.5-3)
Credit/No Credit Only
Semesters Offered: Variable
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 any combination of Music 128 and Theatre Arts 128 a maximum of four times.

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.
NRN20. LVN-RN Transition (4)  
**Prerequisite:** Current California licensure as a vocational nurse. Acceptance into Hartnell Nursing Program.  
*Lec 3 Hrs; Lab Hrs 3 Hrs.*  
**Seminesters 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 using the Roy Adaptation Model for nursing care plans, pathophysiology, pharmacology, and critical thinking skills. There is a laboratory component of the course to allow students to practice and demonstrate proficiency of selected nursing skills.  
[CSU]

NRN30. Basics of Pharmacology for Nursing Practice (1)  
**Corequisite:** NRN 41  
*Lec 1 Hr.*  
**Seminesters 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)  
**Credit/No Credit Only**  
**Prerequisite:** NRN-44, NRN-44.1, NRN-44.2  
*Lab 7.5 Hrs.*  
**Seminesters 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, NRN-41.1, NRN-41.2, NRN-41.3, NRN-30  
*Lec 4 Hrs.*  
**Seminesters 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)  
**Credit/No Credit Only**  
**Prerequisite:** Admission to the Hartnell College registered nursing program.  
**Corequisite:** NRN-41, NRN-41.2, NRN-41.3, NRN-30  
*Lab 12 Hrs.*  
**Seminesters 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)  
**Credit/No Credit Only**  
**Prerequisite:** Acceptance into the Hartnell College registered nursing program.  
**Corequisite:** NRN-41, NRN-41.1, NRN-41.2, NRN-30.  
*Lec 1 Hr.*  
**Seminesters 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:** NRN 41 with a grade of C or better.  
**Corequisite:** NRN-41, NRN-41.1, NRN-41.2, NRN-30.  
*Lab 3 Hrs.*  
**Seminesters 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, NRN 42.1, NRN 42.2  
*Lec 4 Hrs.*  
**Seminesters 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)  
**Credit/No Credit Only**  
**Prerequisite:** NRN 41.1 with a grade of C or better.  
**Corequisite:** NRN 42, NRN 42.2  
*Lab 12 Hrs.*  
**Seminesters 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)  
**Credit/No Credit Only**  
**Prerequisite:** NRN 41.2 with a grade of C or better.  
**Corequisite:** NRN 42, 42.1  
*Lec 1 Hr.*  
**Seminesters 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.  
**Corequisite:** NRN 43.1, NRN 43.2, NRN 43.3  
*Lec 4 Hrs.*  
**Seminesters Offered:** Variable  
Application of the Roy Adaptation Model 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)  
**Credit/No Credit Only**  
**Prerequisite:** NRN 42.1 with a grade of "C" or better.  
**Corequisite:** NRN 43, NRN 43.2, NRN 43.3  
*Lab 15 Hrs.*  
**Seminesters Offered:** Variable  
Application of the Roy Adaptation Model 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]

NRN43.2. Critical Thinking for Nurses III (1)  
**Credit/No Credit Only**  
**Prerequisite:** NRN 42.2 with a grade of C or better.  
**Corequisite:** NRN 43, NRN 43.1, NRN 43.3  
*Lec 1 Hr.*  
**Seminesters 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 Roy Adaptation Model in the care of the adult, geriatric, and mental health client with increasingly complex physiological and psychological alterations.  
[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.
NRN43.3. Nursing Skills Lab III (1)  
**Prerequisite:** NRN 41.3 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 Roy Adaptation Model and the nursing process are used as the framework for presenting the nursing skills required for the care of clients with increasing complex physiological and psychological alterations. 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 44.1, 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)  
**Credit/No Credit 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)  
**Credit/No Credit 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)  
**Credit/No Credit 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 student 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 (1-3)  
**Credit/No Credit 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]**

NRN101. Readiness for Nursing (2)  
**Corequisite:** NRN 101L  
**Advisory:** Completion of BIO-5 and BIO-6 or equivalent and ENG-1A prerequisite course with grades of “C” or better.  
**Lec 2 Hrs**  
**Semesters Offered:** Variable  
An introduction to the profession of nursing and an overview of the Hartnell College Associate Degree nursing program. The role of the nurse, current health care policies, and challenges affecting the practice of nursing are addressed. Test taking strategies, study skills, and the responsibilities of the nursing student are discussed and a research paper on a current evidence-based nursing practice is required. Learning style inventories and readiness testing are administered to assist the student with career decisions regarding the nursing profession. Successful completion of NRN-101 is required for entry into the Hartnell College registered nursing program. The course may be "in progress" when applying for acceptance into the registered nursing program.  
**[CSU]**

NRN101L. Readiness for Nursing–Lab (1)  
**Credit/No Credit Only**  
**Corequisite:** NRN-101  
**Advisory:** Completion of BIO-5 and BIO-6 or equivalent and ENG-1A prerequisite courses with grades of "C" or better.  
**Lab 3 Hrs**  
**Semesters Offered:** Variable  
An introduction to the fundamental skills of the profession of nursing. Classroom instruction includes communication techniques, medication management, and infection control. Basic nursing skills are demonstrated, practiced, and competency tested. Students gain hands-on experience during clinical activities. Students must have Healthcare Provider CPR certification and tuberculosis bacillus screening before participating in the clinical experience. Successful completion of NRN 101-L is required for entry into the Hartnell College registered nursing program. NRN 101-L may be "in progress" when applying for acceptance into the registered nursing program.  

NRN225. Survival Skills for 1st Semester Students (1-3)  
**Credit/No Credit 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.  

NRN226. Success Strategies for 2nd Semester RN Students (1-3)  
**Credit/No Credit 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)  
**Credit/No Credit 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.  

NRN228. Success Strategies for 4th Semester RN Students (1-3)  
**Credit/No Credit 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.
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.

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.

NVN150. Vocational Nursing Laboratory Practicum (3-2.0)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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.

NVN227 Success Strategies for 3rd Semester VN Students (1-3)
Credit/No Credit 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.

OCN1. Oceanography (3)
Lec 3 Hrs
Semesters Offered: Variable
The geological, physical, chemical and biological aspects of the ocean environment. It includes the origin of the oceans, nature of the ocean basins, plate tectonics, causes and effects of currents, coastal geology, waves, tides and tidal currents, as well as the biological and environmental aspects of the oceans.

[CSU; UC; CSU-GE, AREA B1; IGETC AREA 5]
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; CAN PHIL 2; 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; CAN PHIL 6, CAN PHIL SEQ A with PHL 6 & 8, 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; CAN PHIL 10, CAN PHIL SEQ A with PHL 6 & 8, 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; CAN PHIL 4; CSU-GE, AREA C2; IGETC, AREA 3 and logic]

PHL15. Critical Thinking and Logic (3)
   Credit/No Credit 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; CAN PHIL 6; 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)
   **Advisory:** Photography 1
   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; CAN ART 18]

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)
   **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]

PHO80. Digital Photographic Imaging (3)
   Lab 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 ART 80.
[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.
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]

PE1.131. Intro. to Weight Training (.5-2)  
**Credit/No Credit Option**  
**Semesters Offered:** Variable  
A progressive weight-training program to increase flexibility, strength, endurance, and skills. Course will begin with a health screening and baseline or functional capacity fitness assessment.  
[CSU; UC]

PE1.134. Swim Fitness (1, 1.5)  
**Credit/No Credit Only**  
**Advisory:** Intermediate swimming ability recommended.  
**Semesters Offered:** Variable  
Intermediate swimming techniques practiced while improving endurance and cardiovascular fitness.  
[CSU]

PE1.137. Aerobics I (1, 1.5)  
**Credit/No Credit 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)  
**Credit/No Credit Option**  
**Semesters Offered:** Variable  
Cardiovascular 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)  
**Credit/No Credit 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 DSPS & Office for verification of eligibility for this class.  
[CSU; UC]

PE1.150. Beginning Golf (1, 1.5)  
**Credit/No Credit 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]

PE1.151. Advanced Golf (1, 1.5)  
**Credit/No Credit Option**  
**Semesters Offered:** Variable  
Course provides instruction in the advanced techniques and strategies of golf. Golf classes may be repeated at the appropriate level, but total golf enrollments are limited to four.  
[CSU; UC]

PE1.160. Beginning Swimming (1, 1.5)  
**Semesters Offered:** Variable  
Beginning skills and techniques introduced and practiced, allowing the student to become comfortable in the water.  
[CSU; UC]

PE1.161. Intermediate Swimming (1, 1.5)  
**Semesters Offered:** Variable  
Intermediate skills and techniques introduced and practiced. Introduction to diving and the use of springboard will be covered. The students should be able to swim strokes such as the crawl, backstroke, butterfly and side stroke and also be skilled in jumping and diving into the pool from the deck, low and high boards.  
[CSU; UC]

PE1.162. Advanced Swimming (1, 1.5)  
**Semesters Offered:** Variable  
Advanced skills and techniques introduced and practiced in both swimming and springboard diving. The students should be proficient in strokes such as the crawl, back stroke, butterfly and side stroke and also be skilled in jumping and diving into the pool from the deck, low and high boards.  
[CSU; UC]

PE1.163. Adaptive Swimming (1, 1.5)  
**Credit/No Credit Option**  
**Semesters Offered:** Variable  
A course designed for the physically challenged student to acquire basic fundamental skills, appropriate social behavior, and functional knowledge of safety to enable the student to successfully participate in swimming. Students should complete an application in the DSPS Office for verification of eligibility for this class.  
[CSU; UC]

PE1.170. Beginning Tennis (1, 1.5)  
**Semesters Offered:** Variable  
Develops basic skills necessary to play tennis. Emphasis is placed on the fundamental techniques, rules, scoring, history, and tennis etiquette. 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]
**PE1.171. 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)**  
*Credit/No Credit Option*  
*Semesters Offered: Variable*  
Develops advanced strategies 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)**  
*Credit/No Credit 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)**  
*Credit/No Credit 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)**  
*Credit/No Credit 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 (1.5-2)**  
*Credit/No Credit 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)**  
*Credit/No Credit 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]

**PE1.211. Adaptive Basketball (1)**  
*Credit/No Credit 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)**  
*Credit/No Credit 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)  
Credit/No Credit Option  
Seminars 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)  
Credit/No Credit Option  
Seminars 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)  
Credit/No Credit Option  
Seminars 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 openentry openexit basis. Students should complete an application in the DSP&S Office for verification of eligibility for this class.  
[CSU; UC]  

PE1.225. Advanced Volleyball (1, 1.5)  
Credit/No Credit Option  
Seminars Offered: Variable  
Designed to give experienced volleyball players an opportunity to strengthen their 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)  
Seminars 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)  
Seminars 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)  
Credit/No Credit Option  
Seminars 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)  
Credit/No Credit Option  
Seminars 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)  
Credit/No Credit Option  
Lec.  .75 Hrs; Lab. 2.25 Hrs  
Seminars 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]  

PE1.235. Yoga (1.5)  
Credit/No Credit Option  
Lec.  .75 Hrs; Lab. 2.25 Hrs  
Seminars 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.  
[CSU]  

PE1.236. Weight Training for Women (1.5)  
Credit/No Credit Option  
Lec.  .75 Hrs; Lab. 2.25 Hrs  
Seminars 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]  

PE1.237. Adaptive Stress Reduction (1.5)  
Credit/No Credit Option  
Lec.  .75 Hrs; Lab. 2.25 Hrs  
Seminars 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]  

PE1.239. Badminton (1.5)  
Credit/No Credit Option  
Lec.  .75 Hrs; Lab. 2.25 Hrs  
Seminars 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]  

PE1.240. Ultimate Frisbee (1.5)  
Credit/No Credit Option  
Lec.  .75 Hrs; Lab. 2.25 Hrs  
Seminars 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]  

Hartnell College Library/LRC.

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PE.1.242  Introduction to Triathlon and Skill Development (2)  
**Credit/No Credit 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] 

PE.1.243  Core Strengthening and Flexibility (1.5)  
**Credit/No Credit 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] 

PE3.510.  Intercolligate Baseball for Men (2)  
**Semesters Offered:** Variable  
Advanced techniques and strategies of competitive intercollegiate baseball competition. Approximately thirty-two intercollegiate games.  
[CSU; UC] 

PE3.511.  Intercolligate 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] 

PE3.512.  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] 

PE3.513.  Intercolligate Football (2)  
**Semesters Offered:** Variable  
Advanced techniques and strategies of competitive intercollegiate football competition. Approximately ten intercollegiate scheduled games.  
[CSU; UC] 

PE3.514.  Intercolligate 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] 

PE3.515.  Intercolligate Softball for Women (2)  
**Semesters Offered:** Variable  
Advanced techniques and strategies of competitive intercollegiate softball competition. Thirty-two intercollegiate games.  
[CSU; UC] 

PE3.516.  Intercolligate 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] 

PE3.530.  Intercolligate Cross Country (2)  
**Semesters Offered:** Variable  
Techniques and strategies for intercollegiate cross country competition. Approximately ten intercollegiate meets are scheduled.  
[CSU; UC] 

PE3.531.  Intercolligate Track and Field (2)  
**Semesters Offered:** Variable  
Intercollegiate track and field using advanced skills, techniques, and strategies. Eighteen intercollegiate competitions.  
[CSU; UC] 

PE15.  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] 

PE16.  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] 

PE20.  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] 

PE32.  Hiking and Backpacking (2)  
**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, computer analysis, 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]

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 are discussed and analyzed while engaging in supervised and repetitive play. 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.

PE53B. Theory & Analysis of Baseball II (2)
Semesters Offered: Variable
Advanced techniques and strategies of baseball as played at the intercollegiate and professional levels are discussed and analyzed while engaging in supervised and repetitive play. Theory and applications of coaching baseball rules, interpretation and psychological motivation will be stressed. Emphasis will focus on coaching strategies and techniques for the students wishing to coach baseball.
[CSU; UC]

PE54A. 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 competition.
[CSU; UC]

PE54B. 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 play.

PE55A. Theory and 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 application of coaching volleyball, rules, interpretation and psychological motivation will be stressed.
[CSU; UC]

PE55B. Theory and 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]

PE58A. Theory & Analysis of Soccer (2)
Semesters Offered: Variable
Provides students with the advanced concepts, theories and techniques of coaching and playing intercollegiate and interscholastic soccer.
[CSU; UC]

PE58B. Theory & Analysis of Soccer (2)
Semesters Offered: Variable
Provides students with the advanced concepts, theories and techniques of coaching and playing intercollegiate and interscholastic soccer.
[CSU; UC]

PE59A. Theory & Analysis of Softball (2)
Lab 2 Hrs
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]

PE59B. Theory & Analysis of Softball (2)
Lab 2 Hrs
Semesters Offered: Variable
A lecture course designed to develop a thorough understanding of the game of softball. Individual skills, intermediate skills, offensive and defensive strategies, theories and techniques of coaching and rules of the game are discussed and analyzed.
[CSU]

PE116. Practical Field Experience in the Care and Prevention of Athletic Injuries: Lower Extremities (2)
Credit/No Credit Option
Semesters Offered: Variable
Designed to offer the prospective athletic trainer, physical therapist or sports medicine practitioner practical experience in the care and prevention of athletic injuries in regards to lower extremity injuries.

PE117. Practical Field Experience in the Care and Prevention of Athletic Injuries: Upper Extremities (2)
Credit/No Credit Option
Semesters Offered: Variable
Designed to offer the prospective athletic trainer, physical therapist or sports medicine practitioner practical experience in the care and prevention of athletic injuries in regards to upper extremity injuries.

PE118. Practical Field Experience in the Care and Prevention of Athletic Injuries: Head and Spine (2)
Credit/No Credit Option
Semesters Offered: Variable
Designed to offer the prospective athletic trainer, physical therapist or sports medicine practitioner practical experience in the care and prevention of athletic injuries in regards to head and spine injuries.

PE223. Physical Fitness Assessment (.3)
Credit/No Credit Only
Semesters Offered: Variable
A course designed to assess the physical fitness level of the student based on established criteria and standards. In addition to assessment, students will determine strategies to improve individual fitness levels and quality of life.

PE224. Fitness Education and Assessment (.3)
Credit/No Credit Only
Semesters Offered: Variable
Access the physical fitness level of an individual student, based on established criteria and standards. In addition to assessment, students will discuss and select strategies to improve individual fitness levels and quality of life.

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PHY2A. College Physics I (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, 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; CAN PHYS 2, CAN PHYS SEQ A with PHY 2A & 2B; 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; CAN PHYS 4, CAN PHYS SEQ A with PHY 2A & 2B; 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; CAN PHYS 8, CAN PHYS SEQ A with PHY 2A & 2B; 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; CAN PHYS 12, CAN PHYS SEQ B with PHY 4A & 4B & 4C; 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; CAN PHYS 14, CAN PHYS SEQ B with PHY 4A & 4B & 4C; CSU-GE, AREA B1, B3; IGETC AREA 5]

PHY4D. 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]

PHY4E. 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]
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; CAN GOVT 2; 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 on-going 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, inter-governmental 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]

POL4. 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]

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]
PSY1A. General Psychology (3)
   Lab 3 Hrs
   **Semesters Offered:** Variable
   General introduction to the fundamental principles and concepts of human behavior and mental processes. Includes psychology as a science, biological bases of behavior, lifespan development, consciousness, learning processes, stress and health, theories of emotion, psychological disorders, and methods of therapy.
   [CSU; UC; CAN PSY 2; CSU-GE AREA D9; IGETC, AREA 4]

PSY1B. Advanced General Psychology (3)
   **Prerequisite:** Psychology 1A with a grade of C or better.
   **Lab 3 Hrs**
   **Semesters Offered:** Variable
   A continuation of Psych 1A with an emphasis on experimental methods. Course content includes research methods; sensation and perception; experimental methods. Course content includes scientific methods of investigating behavior and mental processes. Students will design and conduct original research as an integral course requirement.
   [CSU; UC; IGETC AREA 4]

PSY8. Research Methods in Psychology (3)
   **Prerequisite:** Psychology 1A with a grade of C or better.
   **Advisory:** ENG-1A.
   **Lab 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]

PSY10. Introduction to Biological Psychology (3)
   **Prerequisite:** Psychology 1A with a grade of C or better.
   **Advisory:** BIO-11
   **Lab 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]

PSY14. Child Psychology (3)
   **Lab 3 Hrs**
   **Semesters Offered:** Variable
   An introduction to human development from the prenatal period through adolescence. The physical, cognitive, social and emotional aspects of development are studied. Topics discussed include infant development, parenting, peer relations, and the conflicts of adolescence.
   [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]

PSY22. Abnormal Psychology (3)
   **Prerequisite:** PSY-1A 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; E; IGETC, AREA 4]

PSY33. Personal and Social Adjustment (3)
   **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]

PSY36. Psychology of “La Mujer” (3)
   **Advisory:** Eligibility of English 1A
   **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 D3, 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]
RE144. Principles of Real Estate (3)  
**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.

RE145. Real Estate Practices (3)  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
Techniques of operating a real estate business, with emphasis on the daily activities of brokers and salespeople. Required for broker's license.

RE146. Legal Aspects of Real Estate (3)  
**Credit/No Credit 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)  
**Credit/No Credit Option**  
**Prerequisite:** Real Estate 144 or Real Estate 145 and completion of mathematics graduation requirements for Associate in Arts degree. All pre-requisites must be completed with a grade of C or better.  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
Study and analysis of money markets, interest rates, and real estate financing, with actual case illustrations demonstrating lending policies, problems, and rules involved in financing real property, including residential, multifamily, commercial, and special purpose properties. Required for broker's license.

RE148. Real Estate Appraisal I (3)  
**Prerequisite:** Real Estate 144 or Real Estate 145 and completion of mathematics graduation requirements for Associate in Arts Degree. All prerequisites must be completed with a grade of C or better.  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
A first course in real estate appraisal, acquainting the student with the appraisal process, particularly as it relates to the single family dwelling. The course is a preparation for more advanced appraisal courses. Case study methods are employed by field work and the utilization of FNMA 1004 Forms - Appraisal Report, Single Family Residence.

RE149. Real Estate Economics (3)  
**Prerequisite:** Real Estate 144 and Real Estate 145 with a grade of C or better.  
**Lec 3 Hrs**  
**Semesters Offered:** Variable  
A practical study of economic aspects of real estate designed to provide a grasp of the dynamic factors that create value in real estate. This is the final unifying course of the basic real estate curriculum.

RE150. Property Management (3)  
**Prerequisite:** Real Estate 148 or other required Real Estate Certificate courses. All prerequisites must be completed with a grade of C or better.  
**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)  
**Prerequisite:** Real Estate 144 or Real Estate 145. All prerequisites must be completed with a grade of C or better.  
**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.

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; CAN SOC 2; CSU-GE, AREA D0; 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 Spanish (5)  
Credit/No Credit 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; CAN SPAN 2, CAN SPAN SEQ A with SPA 1 & 2; IGETC AREA 6; CSU-GE; AREA C2; IGETC, AREA 6]

SPA1A. Elementary Spanish (2.5)  
Credit/No Credit Option  
Lec 2 Hrs; Lab .5 Hr  
Semesters Offered: Variable  
This two-semester sequence (Spanish 1A, Spanish 1B) is equivalent to Spanish 1. The course will cover the fundamentals of spoken and written Spanish. Not open to students who have taken Spanish 1.  
[CSU; UC]

SPA1B. Elementary Spanish (2.5)  
Credit/No Credit Option  
Prerequisite: Spanish 1A with a grade of C or better or demonstration of language proficiency to level.  
Lec 2 Hrs; Lab .5 Hr  
Semesters Offered: Variable  
This two-semester sequence (Spanish 1A, Spanish 1B) is equivalent to Spanish 1. The course will cover the fundamentals of spoken and written Spanish. Not open to students who have taken Spanish 1.  
[CSU; UC; IGETC AREA 6]

SPA1S. Elem. Spanish Speakers (5)  
Credit/No Credit 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)  
Credit/No Credit 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; IGETC AREA 6]

SPA2. Elementary Spanish (5)  
Credit/No Credit 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; CAN SPAN 4, CAN SPAN SEQ A with SPA 1 & 2 CSU-GE, AREA C2; IGETC AREA 6]

SPA2A. Elementary Spanish for Spanish Speakers (5)  
Credit/No Credit Option  
Prerequisite: SPA 1S or SPA 1X or SPA 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 successfully completed Spanish 2 or Spanish 2S.  
[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 6]

SPA2X. Elementary Spanish for Chicano Students (5)  
Credit/No Credit 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 successfully completed Spanish 2 or Spanish 2S.  
[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 6]

SPA2S. Elementary Spanish for Spanish Speakers (5)  
Credit/No Credit Option  
Prerequisite: SPA 1S or SPA 1X or SPA 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 2X course for Spanish speakers, conducted totally in Spanish with greater emphasis on reading, writing, and grammar. Not open to students who have successfully completed Spanish 2 or Spanish 2X.  
[CSU; UC; CSU-GE; AREA C2; IGETC, AREA 6]

SPA3. Intermediate Spanish (5)  
Credit/No Credit 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; CAN SPAN 8, CAN SPAN SEQ B with SPA 3 & 4; CSU-GE, AREA C2; IGETC, AREA 6]

SPA3S. Intermediate Spanish for Spanish Speakers (5)  
Credit/No Credit 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 3 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 successfully completed Spanish 3.  
[CSU; UC; CSU-GE, AREA C2; IGETC, AREA 3B, 6]
SPA4. Intermediate Spanish (5)
Credit/No Credit 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 45 with a grade of "C" or better.
[CSU; UC; CAN SPAN 10, CAN SPAN SEQ B with SPA 3 & 4 CSU-GE, AREA C2; IGETC, AREA 6]

SPA4S. Intermediate Spanish for Spanish Speakers (5)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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]

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 introductory course covers the basic 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; CAN SPCH 4 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. 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 group, 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; 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; CAN DRAM 6]

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)
Credit/No Credit 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]
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; CAN DRAM 18; 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.

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]

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; CAN DRAM 8]

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; CAN DRAM 22]

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]

THA17. 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]

THA18. 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 SPE 18 with a grade of "C" or better.  
[CSU; UC; CAN DRAM 6]

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)  
**Credit/No Credit 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]

THA90B. Theatre Outreach Projects: Implementation and Practice (.5-4)  
**Credit/No Credit 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]

THA91A. New Works Project - Concept and Development (.5-4)  
**Credit/No Credit Only**  
**Semesters Offered:** Variable  
This course will identify and nurture original ideas and existing non-dramatic works with potential for development into dramatic texts and suggest a preliminary time-line for their development.  
[CSU; UC]

THA91B. New Works Project - Implementation and Practice (.5-4)  
**Credit/No Credit Only**  
**Semesters Offered:** Variable  
This course will guide a previously identified concept for a new theatrical work through the first stages of drafting and revision of text.  
[CSU; UC]

THA91C. New Works Project - Execution and Assess. (.5-4)  
**Credit/No Credit Only**  
**Semesters Offered:** Variable  
Rehearsal and presentation of new theatrical texts under development.  
[CSU; UC]

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THA92A. Solo Artist Project: Concept and Development (.5-4)
Credit/No Credit 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, com-poser, and writer). Students may enroll in THA-92A a maximum of four times.
[CSU; UC]

THA92B. Solo Artist Project: Implementation and Practice (.5-4)
Credit/No Credit Only
Semesters Offered: Variable
Focuses on the development of an approved script or 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)
Credit/No Credit Only
Semesters Offered: Variable
Final rehearsal and preparation for presentation of solo art projects, including technical rehearsals, dress rehearsals and audience presentation.
[CSU; UC]

THA100A. Introduction to Ensemble Play Production: Concept/Development (.5-4)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit Only
Semesters Offered: Variable
Extensive practice in the development of the modern ensemble play, with an emphasis on performance and stage management.

THA102. Ensemble Theatre: Modern Plays In Performance (.5-3)
Credit/No Credit Only
Semesters Offered: Variable
Play presentation techniques for the performer, stage manager and theatre technician, with an emphasis on the literature of the modern ensemble play.

THA110A. Introduction to Modern Play Production: Concept and Development (.5-4)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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 Prod.: Concept and Development (.5-4)
Credit/No Credit 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 Production: Implementation and Practice (.5-4)
Credit/No Credit 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 MUS-120B and Theatre Arts 120B a maximum of four times.

THA120C. Introduction to Musical Theatre Production: Execution and Assessment (.5-4)
Credit/No Credit 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 in Rehearsal (.5-4)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit 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.

THA124. Musical Theatre: The Ensemble Musical in Performance (.5-3)
Credit/No Credit 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.

THA125. Musical Theatre - World Theatre Musicals in Rehearsal (.5-4)
Credit/No Credit 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.

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.
THA126. Musical Theatre - World Theatre Musicals in Performance (.5-3)
**Credit/No Credit 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)
**Credit/No Credit Only**  
**Seminars Offered:** Variable  
Extensive practice in the development of the revival of a period musical with an emphasis on performance and stage management. Students may enroll in any combination of Music 127 and Theatre Arts 127 a maximum of four times.

THA128. Musical Theatre - Revival Musicals in Performance (.5-3)
**Credit/No Credit Only**  
**Seminars Offered:** Variable  
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 any combination of Music 128 and Theatre Arts 128 a maximum of four times.

THA130A. Introduction to World Theatre Production: Concept and Development (.5-4)
**Credit/No Credit 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 and Practice (.5-4)
**Credit/No Credit 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-130B a maximum of four times.

THA130C. Introduction to World Theatre Production: Execution and Assessment (.5-4)
**Credit/No Credit 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)
**Credit/No Credit 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)
**Credit/No Credit 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-132 a maximum of four times.

THA133. World Theatre: The Ensemble Play in Performance (.5-4)
**Credit/No Credit 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)
**Credit/No Credit Only**  
**Seminars Offered:** Variable  
The rehearsal and development of the world theatre ensemble play with an emphasis on period theatre play. Students may enroll in THA-134 a maximum of four times.

THA135. World Theatre - Revival Plays in Rehearsal (.5-4)
**Credit/No Credit 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)
**Credit/No Credit Only**  
**Seminars Offered:** Variable  
Extensive practice in the development of the ensemble-oriented revival play with an emphasis on performance and stage management.

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THA170. Proscenium Stage Scenic Construction (.5-6)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit Only
Semesters Offered: Variable
Designed to teach the basic 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)
Credit/No Credit Only
Semesters Offered: Variable
Beginning and intermediate scenic painting and properties execution for the proscenium stage.

THA176. Thrust and Three-Quarter Stage Scenic Painting and Properties Techniques (.5-6)
Credit/No Credit Only
Semesters Offered: Variable
Beginning and intermediate scenic painting and properties execution for the thrust/three-quarter stage.

THA177. Advanced Scenic Paint, Props and Crafts Management for the Proscenium and Thrust Stages (.5-6)
Credit/No Credit Only
Semesters Offered: Variable
Advanced scenic painting, properties, and crafts execution for the thrust/three-quarter stage.

THA180. Proscenium Stage Costuming Techniques (.5-6)
Credit/No Credit Only
Semesters Offered: Variable
Designed to teach the basic skills, concepts, and methods of beginning and intermediate costume construction execution 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)
Credit/No Credit Only
Semesters Offered: Variable
This course is designed to teach the basic skills, concepts, and methods of beginning and intermediate costume construction execution for the thrust and/or three-quarter stage. The course will cover the theater plant, theater personnel, costume construction and execution 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.

THA184. Proscenium Stage – Make Up/Hair Tech. Beg/Int. (.5-.6)
Credit/No Credit 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 – Make-up/Hair Techniques Beginning/Intermediate (.5-6)
Credit/No Credit 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/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. 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-186 a maximum of four times.

THA187. Advanced Makeup, Hair, Wig, and Wardrobe Techniques (.5-6)
Credit/No Credit 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/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. 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-186 a maximum of four times.

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THA190. Proscenium Stage Lighting, Sound, and Rigging
Techniques (.5-6)
Credit/No Credit 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 Lighting, Sound, and Rigging Management (.5-6)
Credit/No Credit 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)
Credit/No Credit 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)
Credit/No Credit Option
Lec 1 Hr; Lab 3 Hrs
Semesters Offered: Variable
Introduction and basic training in sheet metal forming, fastening and print reading skills. Students will develop basic skills in the use and application of sheet metal related equipment. Completion of Technical Math 151 is recommended.

WLD53. Welding Fabrication (2)
Credit/No Credit Option
Prerequisite: WLD 50 or 51. All prerequisites must be completed 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 utilizing oxy-acetylene, arc mig and tig welding processes. Completion of Technical Math 151 is recommended.

WLD54. Advanced Arc Welding (2)
Credit/No Credit Option
Prerequisite: WLD 50 with a grade of C or better or appropriate experience.
Lec 1 Hr; Lab 3 Hrs
Semesters Offered: Variable
Advanced study in theory and practice of electric arc welding, mig and flux cored welding, oxy-acetylene, air-arc and plasma cutting. A course designed for those seeking to certify in a specific welding process for the construction, boiler, pressure vessel, and pipeline welding industries. Heavy emphasis on destructive and nondestructive testing.

WLD57. Pipe Welding (2)
Credit/No Credit Option
Prerequisite: WLD 50 with a grade of C or better or appropriate experience.
Lec 1 Hr; Lab 3 Hrs
Semesters Offered: Variable
Advanced study in arc welding with full emphasis on pipe welding techniques. Main objective is to enable the student to certify in the 5G and 6G welding positions.

WLD58. Hardfacing and Surfacing (2)
Credit/No Credit Option
Prerequisite: WLD 50 with a grade of C or better or appropriate experience.
Lec 1 Hr; Lab 3 Hrs
Semesters Offered: Variable
Advanced study in arc welding with full emphasis on hardfacing and surfacing techniques. Student will become familiar with arc-arc cutting, flux-cored surfacing, spray surfacing and welding metallurgy.
Administration and Faculty

DR. PHOEBE HELM, SUPERINTENDENT/PRESIDENT

Executive Vice-President ............................................................................................................................................... Vacant
Vice-President, Advancement, Public Information, Marketing .................................................................................. Beverly Grova
Manager of Facilities Planning ................................................................................................................................. Vacant
Associate Vice-President, Educational Technology/Library ..................................................................................... Gary Hughes
Associate Vice-President, Student Affairs/Athletics ................................................................................................. Gregory Peterson
  Dean, PE, Athletics ............................................................................................................................................. Dyan Miller
  Director, Counseling ........................................................................................................................................... Cicely McCreight
  Director, EOPS ............................................................................................................................................... Paul Casey
  Director, Enrollment ....................................................................................................................................... Mary Dominguez
  Director, Financial Aid ................................................................................................................................. MaryHelen Dorado
Associate Vice-President, Career and Economic Development .................................................................................. Vacant
  Assistant Dean/Director, Nursing and Health Services ....................................................................................... Catherine Ryan
  Director of CDC ............................................................................................................................................ Linda Taylor
  Director of Small Business Development .......................................................................................................... Vacant
  Coordinator, Foster Care ............................................................................................................................. Carla Juarez
Associate Vice-President, Academic Affairs and Accreditation ................................................................................. Kathleen Rose
  Director of Western Stage ............................................................................................................................... Jon Selover
Associate Vice-President, Support Operations ......................................................................................................... Barbara Yesnosky
  Director of Human Resources ......................................................................................................................... Tamberly Petrovich
  Controller ...................................................................................................................................................... Vacant
  Grants Manager ............................................................................................................................................. Sharon Alheit
  Food Services Manager .............................................................................................................................. Mike Cunnane
Dean, Development Education (Basic Skills, ESL, GED, etc.) ..................................................................................... Vacant
Dean, Distance Learning, Evening/Weekend Programs .......................................................................................... Jennifer Fellguth
Director, South County ........................................................................................................................................... Paulette Bumbalough
<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Degree(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADAMS, PHILIP</td>
<td>Business</td>
<td>BS, MBA, San Jose State University</td>
</tr>
<tr>
<td>ADAMS, LAWRENCE</td>
<td>Political Science</td>
<td>BA, CSU Chico, MA, St. John’s University</td>
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<td>AGRAFITI, GARY</td>
<td>Nursing</td>
<td>BA, Cornell, MBA, Columbia University, BSN, University of Delaware</td>
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<tr>
<td>ANDERSON, TONY</td>
<td>Counselor</td>
<td>BS, MA, San Jose State University</td>
</tr>
<tr>
<td>ARENAVIZ, MITZI</td>
<td>Counselor</td>
<td>BA, CSU Fresno, MA Ed, Cal Poly San Luis Obispo</td>
</tr>
<tr>
<td>BARMINSKI, ROBERT</td>
<td>Geology/Oceanography</td>
<td>BS, Sul Ross State University, MS, San Jose State University Moss Landing Laboratories</td>
</tr>
<tr>
<td>BATES, RONALD G.</td>
<td>Mathematics</td>
<td>BS, MS, Cal Poly SLO, DA, Idaho State University</td>
</tr>
<tr>
<td>BECK, JAMES C.</td>
<td>English as a Second Language</td>
<td>BA Cal Poly San Luis Obispo, MA, San Jose State University</td>
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<tr>
<td>BERSAMIN, MANUEL</td>
<td>Director, SSS/TRIO Grant</td>
<td>BA, UC Irvine, MA, Stanford University</td>
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<td>BERTOMEN, LINDSEY</td>
<td>Administration of Justice</td>
<td>BS, Roger William University</td>
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<td>BEYMER, DAVID</td>
<td>Physical Education</td>
<td>BS, Central Washington University, MS, University of Arizona</td>
</tr>
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<td>BOSLER, ERIC</td>
<td>Photography, Art</td>
<td>BFA, California College of Arts and Crafts, MFA, UC Berkeley</td>
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<td>BRAVO, GABRIEL</td>
<td>Counselor</td>
<td>BA, UC Berkeley, MA, San Jose State University</td>
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<tr>
<td>BUMBALOUGH, PAULETTE</td>
<td>Director, Education Services</td>
<td>BA, San Jose State, MEd, Chapman University</td>
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<td>BUTLER, JAMES</td>
<td>Mathematics</td>
<td>BS, San Diego State University, MS, CSU Hayward</td>
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<tr>
<td>CALVERT, PETER</td>
<td>Business</td>
<td>BA, University of Massachusetts/ Boston State, MBA, Golden Gate University</td>
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<td>CARBAJAL, THERESA</td>
<td>Learning Disability Specialist</td>
<td>BS, San Francisco State University, MS, CSU Sacramento</td>
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<tr>
<td>CASTILLO, MARIA</td>
<td>Counselor</td>
<td>BA, MS, San Jose State University</td>
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<td>CHRISTENSEN, CARL</td>
<td>Music</td>
<td>BM, MM, DMA, University of Southern California</td>
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<td>COLLINS, MATT</td>
<td>Physical Education</td>
<td>BA, Sonoma State University, MA, Saint Mary’s College</td>
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<td>CONTRERAS, LETICIA</td>
<td>Mathematics</td>
<td>BA, CSU, Stanislaus, MS, Cal Poly San Luis Obispo</td>
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<td>COOK, JACALYN L.</td>
<td>Nursing</td>
<td>BA, Fresno Pacific University, MS, University of LaVerne</td>
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<tr>
<td>COUSINEAU, MARY</td>
<td>Nursing</td>
<td>MS, UC San Francisco, BSN, Duke University</td>
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<tr>
<td>DAVIS, WAYNE M.</td>
<td>Counselor</td>
<td>BA, MA, CSU Fresno</td>
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<tr>
<td>DeJESUS-RILEY, ANN</td>
<td>History</td>
<td>BA, CSU Stanislaus, MA, San Francisco State University</td>
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<tr>
<td>DURHAM, BARBRA</td>
<td>Nursing</td>
<td>MSN, CSU, Dominguez Hills, BSN, University of Windsor</td>
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<tr>
<td>EDENS, ALEXANDER</td>
<td>Biology</td>
<td>BS, San Jose State University, Ph.D., UC Santa Cruz</td>
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<td>EMANUEL, LEEANN</td>
<td>Counselor</td>
<td>BA, UCSC, MA, San Jose State University</td>
</tr>
<tr>
<td>ENTEKHLABI, PARVIZ</td>
<td>Computer-Aided Design/ Engineering</td>
<td>BS, MS, Murray State University</td>
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<tr>
<td>ESTRELLA, ELIZABETH</td>
<td>Counselor</td>
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<tr>
<td>FAILANO, RACHEL</td>
<td>Registered Nursing</td>
<td>BA, CSU Fresno, BSN, Samuel Merritt College</td>
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<tr>
<td>FELLGUTH, JENNIFER</td>
<td>Librarian</td>
<td>BA, MA, CSU Stanislaus, MLIS, UC Berkeley, PhD Nova, Southeastern</td>
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<tr>
<td>FISHER, VALERIE</td>
<td>Director, Regional Health Occupational Center</td>
<td>AARN, Saddleback Community College, BA, John F. Kennedy University, MA, Holy Names College</td>
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<tr>
<td>GUTIERREZ, ALEJANDRA S.</td>
<td>Language Lab Specialist</td>
<td>BA, Universidad Autonoma de Guadalajara, Mexico</td>
</tr>
<tr>
<td>HIRI-GARCIA, JEANNE</td>
<td>Early Childhood Education/Bilingual Education</td>
<td>BA, CSU Chico, MA, San Jose State University</td>
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<tr>
<td>HOVDE, SUSAN</td>
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<td>BS, University of Wisconsin, MS, Yale University</td>
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<tr>
<td>HUGHES, GARY J.</td>
<td>Associate Vice President for Educational Technology and Library Services</td>
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<td>HUGHEY, JEFFERY R.</td>
<td>Biology</td>
<td>BA, MA, Sonoma State University, PhD, University of North Carolina, Chapel Hill</td>
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<td>HUSSAIN, MOHAMMAD</td>
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<td>KACZMAR, DEBRA</td>
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<td>BS, San Jose State University, MS, Southern Connecticut State University</td>
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<tr>
<td>KIMBROUGH, CAROL T.</td>
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</tr>
</tbody>
</table>
KING, CAROL  
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BS, UC Irvine

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MA, CSU Long Beach

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WEBER, MARK
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WELCH, JOE
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BS, Naval Academy
MS, Naval Post Graduate School
MS, Nova Southeastern University

WHITMORE, JANEEN
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BSN, Loyola University
MS, Louisiana State University Health Sciences Center, New Orleans

WIESE, PAMELA
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MA, Ohio State University

WRIGHT, ANN
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PhD, Stanford University

YEE, LAWRENCE
Chemistry
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MA, University of the Pacific
PhD, University of Tulsa

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
MEd., College of Notre Dame
Campus Map

Hartnell College

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/Payroll
IRP Institutional Research & Planning
Lawn Lawn
LRC Learning Resource Center
Maint Maintenance/Operations/Receiving
MER T.R. Merrill Hall
PAF Performing Arts Facility
PE Physical Education
PLNTRM Planetarium
POOL HC Pool
TECH Technology
Tennis Tennis Courts (TNCT)
UNIT Units A–B–C–D–E–F–G
VAF Visual Arts Facility (Gallery)
RHORC Regional Health Occupations

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

King City Education Center
117 North Second Street
King City, California
386-7100
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