Shasta College

2008-2009 Catalog

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(530) 242-7500

Shasta College
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Red Bluff, CA 96080
tehama@shastacollege.edu
530-529-8980

Shasta College
Trinity Campus
30 Arbuckle Court
Weaverville, CA 96093
trinity@shastacollege.edu
530-623-2231

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intermountain@shastacollege.edu
530-335-2311

Shasta College
Downtown Redding Campus
1400 Market Street
Redding, CA 96001
530-339-3610

Shasta College is accredited by the Accrediting Commission for Community and Junior Colleges of the Western Association of Schools and Colleges, 10 Commercial Blvd., Suite 204, Novato, CA 94949, TELEPHONE (415) 506-0234, FAX (415) 506-0238. Shasta College is listed as a public community college in the approved list of the Education Directory, Higher Education Part 3, published by the U.S. Office of Education.

In the event of a discrepancy between the online edition of the catalog and the printed version of the catalog, the online version is the official version. The online version is updated at the start of registration for each semester and, therefore, should be relied upon as the most up-to-date.

SHASTA-TEHAMA-TRINITY JOINT COMMUNITY COLLEGE DISTRICT
GOVERNING BOARD OF TRUSTEES

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MISSION STATEMENT

The mission of the Shasta-Tehama-Trinity Joint Community College District is to provide open access and opportunity for success to students who have diverse backgrounds, interests, and abilities. The District is committed to providing the knowledge and skills necessary for a student to succeed. The District recognizes that success requires specific life skills and professional skills and also effective communication, critical thinking, global consciousness and global responsibility. By offering programs leading to successful completion of a quality university transfer program, or career-technical education, the District is responsive to the needs of our communities within a changing global society. By offering comprehensive campus and community service programs, the District enables students to achieve personal as well as academic potential and contributes to the social, cultural and economic development of our region.

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ACCURACY STATEMENT

The Shasta-Tehama-Trinity Joint Community College District has made every reasonable effort to insure that information in this catalog is accurate. Courses and programs that are offered, along with other matter contained herein, are subject to change without notice by Shasta College administration for reasons related to student enrollment, level of financial support, or for any other reason, at the discretion of the District. The District further reserves the right to add, amend, or repeal any of their rules, regulations, policies and procedures, consistent with applicable laws.

Institutional Student Learning Outcomes

The District is committed to providing the knowledge and skills necessary for a student to succeed. The District recognizes that success requires specific life skills and professional skills and also effective communication, critical thinking, global consciousness and global responsibility.

To support our students in achieving success, Shasta College has determined that a student who earns a degree or occupational certificate will demonstrate:

1. Life and Professional Skills
Life and Professional Skills include the ability to create well developed goals and plans, the ability to make responsible decisions in support of those goals and plans, the ability to recognize and accept consequences of decisions, appropriate career-technical skills, the ability to work effectively as an individual and as part of a group, and the ability to resolve conflict.

2. Effective Communication
Effective communication includes the ability to convey information, ask meaningful questions, and express thoughts, ideas and feelings.

3. Critical Thinking Skills
Critical thinking includes the application of logical reasoning to collect and evaluate information, recognize and categorize patterns, contrast and compare, make decisions and reach conclusions, and solve problems.

4. Global Consciousness and Responsibility
Global Consciousness and Responsibility includes the knowledge and understanding of civic, cultural and environmental issues; knowledge of and respect for the needs, difficulties, and rights of diverse groups; an appreciation of the importance of public service; and a commitment to life-long learning.

Shasta-Tehama-Trinity Joint Community College District

Welcome to Shasta College!

Shasta College serves Shasta, Tehama, and Trinity Counties as a comprehensive community college offering programs in a broad range of fields of study to prepare you for the new century.

We at Shasta College pride ourselves on our dedication to students as our first priority. You will have the opportunity to have your own personalized education and career plan. Whether your goal is employment upon graduation or transfer to a four-year university, you will know how, at each step, to best steer your own pathway to success.

A decision to enroll at Shasta College is a wise investment of your time, talent and resources. Thousands of successful graduates throughout Northern California and the nation attest to their pride in being part of the Shasta College family. We welcome you to that tradition and to a wide new world of opportunities made possible through higher education.

Gary A. Lewis
Superintendent/President

Bienvenidos a Shasta College

Shasta College atiende a los condados de Shasta, Tehama, Trinity como un colegio de comunidad integral ofreciendo una gran variedad de programas en varios campos de estudio para preparte al Nuevo siglo.

En Shasta College nos sentimos muy orgullosos de la dedicación brindada a nuestros estudiantes, siendo esta nuestra primera prioridad. Como estudiante tú tendrás la oportunidad de tener un plan personalizado de educación. Si tu objetivo es conseguir empleo después de graduarte o transferirte a una Universidad, tú conocerás el camino para alcanzar el éxito.

Decidir matricularte en Shasta College es una sabia inversión de tu tiempo, talento y recursos. Miles de exitosos graduados del norte de California y de la nación dan fe del orgullo de ser parte de la familia de Shasta College. Nosotros te damos la bienvenida a esta tradición y al nuevo mundo de oportunidades que es posible gracias a la educación superior.

Gary A. Lewis
Superintendente/Presidente

Applications and information should be requested from:
Admissions and Records Office, Shasta College, Administration Building, 11555 Old Oregon Trail,
P.O. Box 496006, Redding, CA 96049-6006
Telephone: (530) 242-7650

Don’t forget to visit our website at www.shastacollege.edu

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The College Catalog is produced annually
by the Office of Academic Affairs

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- Director, Financial Aid ..... Benna Starrett
- Director, TRIO/GEAR-UP ..... Janis Marsh

College Calendar

FALL SEMESTER 2008

Aug. 18 ..... INSTRUCTION BEGINS ON CAMPUS - DAY AND EVENING, ON AND OFF-CAMPUS.

Sept. 1 ..... Labor Day Holiday

Nov. 10 ..... Veterans' Day Holiday

Nov. 26 ..... No evening courses (5 PM or later starting time). DAY COURSES HELD AS USUAL.

Nov 27 – 30 ..... Thanksgiving Holidays

Dec. 15 – 19 ..... Final Examinations

Dec. 20-Jan. 11.. Semester Break

SPRING SEMESTER 2009

Jan. 12 ..... INSTRUCTION BEGINS - DAY AND EVENING, ON AND OFF-CAMPUS

Jan. 19 ..... Martin Luther King Holiday

Feb. 6 ..... Lincoln's Day Holiday

Feb. 16 ..... Washington's Day Holiday

April 6-10 ..... Spring Break

April 13 ..... Classes Resume

May 18-22 ..... Final Examinations

May 22 ..... Commencement

The College

A Brief History

In the Centennial year of California and Shasta County (1950), Shasta College opened its first campus. As part of the state's Centennial celebration, President Harry S. Truman spoke at the college's Thompson Field. There were 26 original faculty members.

Shasta College extends its educational, cultural, and recreational facilities and services to all people in Shasta, Tehama, and Trinity Counties, including parts of Lassen, Modoc, and Humboldt Counties, an area that is more than 10,000 square miles, which is larger than the State of Massachusetts. An eight-member Board of Trustees, which includes a non-voting Student Trustee, represents the Shasta-Tehama-Trinity Joint Community College District.

Shasta College was founded in 1948 as part of the Shasta Union High School District. The Shasta College campus was originally a fur and trading center of the Wintu Indians, later owned by a soldier and his family after the Mexican-American War. After opening its doors on Eureka Way in the fall of 1950, with 256 day students, Shasta College grew so rapidly that, in 1964, voters approved a bond issue for construction of a 337-acre campus at the main campus location. A state-of-the-art $1.5 million Early Childhood Education child care center and instructional facility opened in the fall of 2005. A new 44,000 square foot Health Sciences and University Center opened in the fall of 2007, which houses the college's Dental Hygiene and Nursing Programs. It also serves as host to baccalaureate degree programs offered by both public and private universities.

Shasta College is part of the California Community College system, which is the largest system of higher education in the world, with 109 colleges organized into 72 districts and research has shown that students who have an A.A. or A.S. degree will make an average yearly salary which is 50% higher than a person with less than a high school diploma. Also according to that Census, students who have an A.A. or A.S. degree will make an average yearly salary which is 24% higher than a person with only a high school diploma. The college has articulation agreements to facilitate transfer to the University of California and California State University systems, and many private college campuses.

The Shasta College mascot is the Knight. In 1955, the Shasta College Motor Knights Club, built a knight with a suit of armor and lance. His name is "Oakey Doaks" (named for a cartoon character of the time).

Because of the diversified goals and needs of its students, Shasta College offers a wide range of programs and services, including counseling, tutoring, financial aid, performing arts and athletic events, student activities, veterans' services, cultural events, lecture series, workshops, and art exhibits. Shasta College has extensive offerings on the Internet and through Interactive Television (ITV). Shasta College also offers instruction and student services at the Downtown Campus, Intermountain Campus, Tehama Campus, and Trinity Campus and each location utilizes ITV and computer-assisted learning to supplement on-site courses.

Fall 2000 was the 50th Anniversary of Shasta College, serving the north state with pride and distinction.

Welcome Everyone!

Motor Vehicles on Campus

Operation of motor vehicles on the Shasta 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.

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 and traffic regulations. Regulations and review process information are provided on-line: ***http://www.shastacollege.edu/resources/security/parking/parkingtrafficreg06.pdf*** or may be obtained from Campus Safety at (530) 242-7911. Permits may be obtained at registration or from the Cashier's Office.

Cost of Parking Permit: Refer to the Schedule of Classes or call (530) 242-7911.

Daily Parking Permits are available from parking permit machines in various locations throughout the campus parking lots. These are valid for the day on which the permit is purchased.

Parking permits must be displayed in plain view in the appropriate location according to Parking Regulations or a citation will be issued. **There are no exceptions.** Should you receive a citation, follow the written instructions on the front of the citation. **Restricted parking where regular permits are not valid:** 30 minute zones, staff spaces, handicapped spaces (blue) and car pool spaces.

Car Pool Parking requires the purchase of a student permit and an **additional** permit which can be obtained without additional cost through the Security Department.

Enforcement: Campus parking and traffic safety regulations are enforced by Shasta College and the Redding Police Department. Security issues parking citations for violations. For additional information contact campus parking at (530) 242-7911.

Economic and Workforce Development (EWD)

The Economic and Workforce Development (EWD) Division at Shasta College offers a variety of programs, services, and training for Businesses, Personal and Professional Growth, Nonprofit Organizations, and classes Just for Fun.

- For Businesses, we offer one-on-one consulting services available through the Small Business Development Center (SBDC) at Shasta College. From business start-up, to expanding your business, the SBDC is your one-stop location! In addition, the EWD provides custom developed Business and Employee Training programs to improve your businesses' profitability and operational efficiency.
- The Center for Nonprofit Resources offers grant research facilities, member support, and courses to enhance nonprofit operations. These services provide the nonprofit community with a valuable resource for success.
- We offer a variety of courses for Personal and Professional development, from vocational training in Allied Healthcare to classes in Medical Billing and Notary Public. We also offer CEUs for healthcare professionals as well as occupational certification programs.
- We also offer classes Just for Fun where you can explore and develop new interests and hobbies. We have something for everyone!

For additional information visit our website at
www.shastacollege.edu/ewd
Economic & Workforce Development Division
Shasta College Downtown Redding Campus
1504 Market Street, Suite 200
Redding, California 96001
Voice: (530) 225-4835
Facsimile: (530) 225-3904
Email: ewd@shastacollege.edu

Crime Statistics

The Annual Shasta College Security Report is provided to help ensure a safe environment for our college community and prospective students and employees. This document contains crime statistics for the previous three years in addition to valuable safety and security information. A complete copy of the Security Report may be obtained from the Security Office located in Room 5015. The report is also available through our Campus Website:
http://www.shastacollege.edu/resources/security/crimestat05.pdf .

Extended Education

The Extended Education Division of Shasta College is assigned the responsibility to provide access to higher education for residents beyond the traditional patterns of campus-based education and programs. It does so by offering a variety of programs and courses in surrounding communities designed for those who seek to expand their interests, improve or broaden their occupational and professional preparation, or further their degree aspirations.

Classes are held at each of the three campuses listed below as well as other locations throughout the District. Classes are offered in a variety of formats including live instruction and 2-way interactive television (ITV) and many students are now able to complete their degree or certificate without commuting to the main campus. Office hours at each campus are Monday through Thursday, 8:00 a.m. to 9:30 p.m., and Friday, 8:00 a.m. to 5:00 p.m.

Shasta College
Tehama Campus
900 Palm Street
Red Bluff, CA 96080
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530-529-8980

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530-623-2231

Shasta College
Intermountain Campus
37581 Mountain View Road
Burney, CA 96013
intermountain@shastacollege.edu
530-335-2311

Services available at each campus include admissions assistance, on-site registration and counseling, assessment and orientation, tutoring, and career guidance.

Field Trips and Excursions Liability Policy

Throughout the semester, the District may sponsor voluntary off-campus field trips/excursions. If you choose to participate, be advised that pursuant to California Code of Regulations, Subchapter 5, Section 55450, you have agreed to hold the District, its officers, agents and employees harmless from any and all liability or claims which may arise out of or in connection with your participation in the activity. Unless specifically advised otherwise, the college is not providing the transportation and it is your responsibility to arrange for your transportation to and from the activity. If the College is providing transportation but you do not use the transportation, you are responsible to make your own arrangements and the College assumes no responsibility or liability of any kind.

Foundation

The Shasta College Foundation was established in 1995. The Shasta College Foundation is a 501 (c) (3) non-profit corporation, organized by community spirited citizens to support and benefit the Shasta-Tehama-Trinity Joint Community College District. The Foundation Board of Directors is made up of 17 volunteers representing Shasta, Tehama and Trinity Counties. The Foundation's primary purpose is to raise funds to support and benefit Shasta College. The Foundation recognizes community and campus relationships as core to our mission.

Contributions to the Shasta College Foundation take many forms. Gifts of cash, gifts in kind, stock or securities, trusts, real estate, gifts in memorium, 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:

Scott Thompson, Executive Director
Nancy de Halas, Administrative Assistant
Shasta College Foundation
P.O. Box 496006, Redding, CA 96049-6006
(530) 242-7512
foundation@shastacollege.edu

Open Access Policy

The policy of this District is that, unless specifically exempted by statute or regulation, every course, course section, or class, reported for state aid, wherever offered and maintained by the District, shall be fully open to enrollment and participation by any person who has been admitted to the college(s) and who meets such prerequisites as may be established pursuant to regulations contained in Article 2.5 (commencing with Section 55200) of Subchapter 1 of Chapter 6 of Division 6 of Title 5 of the California Code of Regulations.

Sexual Violence Prevention and Education (AB 1088, amends Ed Code 67385.7)

Starting January 1, 2006, post secondary education districts are required to provide to students educational and preventive information about sexual violence, in addition to the sexual harassment information required by Ed Code 66281.5. At Shasta College this information, titled Sexual Assault Policy, is found on page 4 of the Crime Statistics report, posted on the Campus Security webpage:
http://www.shastacollege.edu/resources/security/sec.htm

Unlawful Discrimination Policy

Compliance Statement
The Shasta-Tehama-Trinity Joint Community College District complies with the California Education Code, Title 5 of the California Code of Regulations, all pertinent titles and sections of the Civil Rights Act of 1964, Title IX regulations, the Educational Amendments of 1972, the Rehabilitation Act of 1973, the Americans with Disabilities Act, and all other applicable federal, state, and local laws.

Nondiscrimination

It is the policy of Shasta-Tehama-Trinity Joint Community College District to provide an environment free of unlawful discrimination. The District is committed to equal opportunity in education programs, employment, and access to institutional programs and activities.

The District, and each individual who represents the District, shall provide access to its services, classes, and programs without regard to race, ethnic group identification, religion, creed, color, national origin, ancestry, disability (mental or physical), age, sex (including gender), marital status, or sexual orientation, or the perception that a person has one or more of the foregoing characteristics.

The District forbids and will not tolerate any form of discrimination and has enacted administrative procedures to assure equal opportunity and to recognize and eliminate violations of this policy in accordance with Title 5 regulations and those of other agencies that administer state and federal laws regarding nondiscrimination. It is both illegal and prohibited by this policy to retaliate against any individual for filing a complaint or participating in an investigation.

Prohibition of Unlawful Discrimination or Harassment (including sexual harassment)

The Shasta-Tehama-Trinity Joint Community College District is committed to providing an educational, employment, and business environment that respects the dignity of individuals and groups. The District shall be free from unwelcome sexual advances, sexual intimidation and exploitation, requests for sexual favors, sexual favoritism, and other verbal or physical conduct or communications constituting unlawful discrimination or sexual harassment, as defined and otherwise prohibited by state and federal law.

Unlawful discrimination or harassment based on any of the following statuses is prohibited and will not be tolerated: race, ethnic group identification, religion, creed, color, national origin, ancestry, disability (mental or physical), age, sex (including gender), marital status, or sexual orientation, or the perception that a person has one or more of the foregoing characteristics.

It is both unlawful and a violation of this policy for anyone who is authorized to recommend or take personal or educational action affecting an employee or student, or who is otherwise authorized to transact business or perform other acts or services on behalf of the Shasta-Tehama-Trinity Joint Community College District, to engage in any form of unlawful discrimination or harassment including sexual harassment or to retaliate against any individual for filing a complaint in an investigation.

Contact Information

The Human Resources/Equal Opportunity Employment Office is responsible for ensuring fair and equitable treatment. The unlawful discrimination policy is available at the Human Resources Office and on-line. The office is located in the Administration Building, Room 121, (530) 242-7640. Students with complaints of discrimination related issues may contact Patricia Demo, Associate Vice President Human Resources/Equal Opportunity Employment, at (530) 242-7640 or Keith Brookshaw, Dean of Students and Support Programs at (530) 242-7628. For further information regarding Section 504 of the Rehabilitation Act, contact the Section 504 Coordinator, or the Dean of Student Services, Shasta College, 11555 Old Oregon Trail, P.O. Box 496006, Redding, CA 96049-6006, (530) 242-7628.

PÓLIZA DE DISCRIMINACIÓN ILEGAL

Declaración de Cumplimiento

El Distrito del Shasta-Tehama-Trinity Joint Community College (Shasta College) cumple con el Código Educacional de California, el Título V del Código de Regulación de California, todos los Títulos y Secciones pertinentes del Acto de Derechos Civiles de 1964, el Título IX de los Enmiendas de Educación de 1972, el Acto de Rehabilitación de 1973, la Ley para estadounidenses con Incapacidades, y todas las demás leyes estatales y federales pertinentes.

No Discriminación

Es la póliza del Distrito de Shasta College de mantener un ambiente libre de discriminación ilegal. El Distrito se compromete a dar oportunidades iguales de educación, empleo, e igualdad de acceso a los programas y actividades institucionales.

El Distrito, y cada persona quien lo representa, reconocen la obligación que tiene de proveer acceso a los servicios, clases y programas, sin discriminación por razones de origen nacional, religión, edad, género, raza, color, ascendencia, orientación sexual, estado civil, o incapacidad física o mental, o debido a que una persona es percibida de tener una o más de las características descritas anteriormente.

El Distrito prohíbe cualquier forma de discriminación y fomenta procedimientos administrativos que reconocen y ponen fin a la discriminación de acuerdo con el Titulo V y las reglas y estatutos tanto del estado de California como las leyes federales. Es ilegal y prohibido tomar algún tipo de represalia en contra de la persona que presenta la queja o participa en la investigación.

Información de Contacto

La Oficina de Recursos Humanos es la entidad responsable de asegurar el tratamiento justo y equitativo. La Póliza de Discriminación Ilegal está disponible en la Oficina de Recursos Humanos y en Internet. La Oficina está localizada en el edificio de Administración, salón 121, (530) 242-7640. Estudiantes que desean presentar una queja, deberían de ponerse en contacto con Patricia Demo en la Oficina de Recursos Humanos (530) 242-7640, o con Keith Brookshaw, el Decano de Servicios para Estudiantes, (530) 242-7628. Para más información sobre el Acto de Rehabilitación póngase en contacto con el Decano de Servicios para Estudiantes, Shasta College, 11555 Old Oregon Trail, P.O. Box 496006, Redding CA 96009-6006, (530) 242-7628.

Chapter 2 - Admission and Enrollment Information

Admissions

Anyone 18 years of age or older or anyone under 18 who has graduated from high school or passed the Calif. High School Proficiency Exam and is a resident of the district may be admitted to Shasta College classes.

Auditing a Course

Purpose:

1. Auditing is to allow students to participate in class activities beyond the course repetition limit; and
2. Auditing is to allow students to repeat a course with the intent of upgrading needed skills or reviewing course content.

Eligibility:

1. Students must be eligible for admissions to the college as regularly enrolled students.
2. Students may audit classes only when they have exhausted repetition opportunities for the course.
3. Students must meet course prerequisites; and
4. Priority in class enrollment shall be given to students desiring to take the course for credit towards a degree or certificate. (Education Code Section 76370(d)).

Fees:

1. The fee for auditing a class is $15.00 per unit, per semester (Education Code Section 76270(a)). Material fees, if applicable, are payable with audit fees upon submitting the approved application. The audit fee is non refundable; and
2. Students enrolled in classes to receive credit for ten or more semester credit units shall not be charged a fee to audit three or fewer semester units per semester.

Procedures:

1. Verification of eligibility from Admissions and Records Office
2. Instructor's signature of approval on audit form
3. Dean of the Division's signature of approval on audit form
4. Return of approved audit form to Admissions and Records Office within **7** days with payment of all fees.

Continuing Students

CONTINUING STUDENTS and RETURNING STUDENTS may register as described in the current Schedule of Classes. Students planning to enroll in math or English classes are advised to take the appropriate assessment test and consult with a counselor before registering. See "Assessment Test Information" in the current Schedule of Classes for details on where and when assessment tests are given.

Coursework – Acceptance of Upper Division Work

Shasta College will accept coursework completed at the upper division level under the following conditions:

- The course must have been completed at an accredited college or university.
- The course must be deemed comparable to a Shasta College course by the faculty in the discipline, or an appropriate designee, or an articulation agreement. Upper division courses (or graduate level courses) which require attainment of the lower division course competencies may also be accepted.
- The upper division course may be used to satisfy a Shasta College major requirement, an A.S. degree general education requirement, or a prerequisite.
- Courses will be accepted for subject credit only. Unit credit will not be awarded toward the 60 units required for the degree. Upper division courses will not be used to certify CSU GE or IGETC requirements.
- For the purposes of ADN or Dental Hygiene prerequisites, the grades earned will be calculated in the same manner as those transferred from another college or university.

Dropping a Class Without Record

Students may drop a class and have no notation appear on their transcripts through the fourth week of a full-term class, or 30% of short term classes. IT IS THE STUDENT'S RESPONSIBILITY TO DROP CLASS(ES). The necessary forms are available from Admissions and Records, Extended Education sites, or by mail. If a student intends to drop a class and stops attending but fails to file the necessary forms, a failing letter grade may be assigned by the instructor. Students may be dropped by the instructor based on excessive absences from a class so long as the instructor has announced attendance criteria.

First-Time Students

MATRICULATION SERVICES

SUCCESS BEGINS WITH A PLAN! The college has found that students who have supplied transcripts, participated in English and math assessments, attended an orientation and discussed their educational goals with a counselor significantly improve their performance in college. We call this process "matriculation."

FIRST-TIME STUDENTS are STRONGLY URGED to take advantage of the matriculation services. Those who do will be eligible for "priority registration."

Participation in matriculation services is OPTIONAL for the following students. If you fall into one of these categories, contact the Admissions and Records Office for appropriate registration information.

1. Students who have received a full array of matriculation services at another California community college;
2. Students who plan to enroll only in courses having no English and/or math skill requirements/prerequisites;
3. Students who plan to enroll in fewer than 6 units and who have "personal interest," advancement in their current jobs, or maintenance of a certificate or license as their goals;

First-Time Students (continued):

4. Students who have completed an Associate or higher degree and are not pursuing a program or degree objective at Shasta College; or
5. Students who have completed 30 or more semester units at another college or university and are not pursuing a program or degree objective at Shasta College.

ALL OTHER FIRST TIME STUDENTS should participate in matriculation services. The matriculation process consists of:

1. Application: This starts the process! Fill out an online application or turn one in to the Admissions and Records Office or Extended Education campus.
2. Records: Arrange to have official transcripts of high school and previous college work sent to Shasta College. These are important for counseling and program planning. Transcripts sent to Shasta College from other colleges and/or educational institutions at the request of a student become part of the student's permanent file and are not duplicated nor distributed.
3. Assessment Testing: This service provides students with information that will help them to make appropriate selections of major programs and courses. Reading, writing, and mathematical skill assessment tests are offered to all students at a variety of times and locations on a walk-in basis. See the section titled, "Assessment Test Information" in the current Schedule of Classes for details. Note: Qualifying scores from approved tests taken within the last two years at accredited institutions and sent to Shasta College may exempt students from having to take Shasta College assessment tests.
4. Orientation: The orientation program provides new students an opportunity to meet with a counselor and register for courses.

   A. Counseling: Counselors provide information about the college and offer academic, transfer, career and personal counseling.

   B. Registration: Students who participate in services 1 through 4 will be given "priority registration" status and will be given an opportunity to register at orientation. Information on the following is also provided at orientation: vocational and certificate programs; transfer requirements; financial aid; Student Support Services Programs; student activities; learning and health services; and an optional campus tour. Please contact the Assessment Center (530) 242-7751 or Counseling Center (530) 242-7724 to sign up or receive additional information on orientation times and locations.

   Students wishing to appeal any component of the matriculation process should contact the Director of Admissions and Records at (530) 242-7668.

FOLLOW-UP COUNSELING

Throughout the semester, counselors are available to assist students in planning and achieving their educational and career goals. Services are available on an appointment basis.

ASSESSMENT TEST INFORMATION

Location: Administration Building, Room 102

All first-time non-exempt students will need to take the Reading, Writing, and Math Assessment. At the time of assessment, all students must provide photo identification (i.e., driver's license, student body card, passport), know their social security number, and have an application on file at Admissions and Records.

The Assessment Center in Room 102 is open Monday through Friday and on selected Saturdays, except for posted holidays. No appointment is needed. Limited evening assessments are also available. Seating is limited and available on a first come, first served basis. The assessments are on computers. Allow a minimum of two hours to complete all three sections. Assessments are available at Extended Education campuses by appointment only.

Students with disabilities should contact Disabled Students Programs and Services (530) 242-7790 for information and assessment accommodations. English-as-a-Second Language students should take the ESL Assessment Exam.

International Students

International students must file an admission application; proof of English competency in the form of at least 450 on the TOEFL examination*; health history, including evidence of polio immunization shots or Sabin Oral vaccine, medical statement of immunization against measles, and a certificate of freedom from active tuberculosis; a financial support statement; and high school and college transcripts.

A minimum TOEFL score of 500 is required for admission into academic courses. Students may be accepted with TOEFL score of 450 with the stipulation that they enroll in ESL coursework and maintain full-time status (minimum 12 units) as per INS regulations. Subsequent semester placement into academic courses will be based on ESL assessment or the TOEFL score.

International students applying for fall semester must complete their applications by June 1. Students applying for the spring semester must complete their applications by Nov. 1. Incomplete applications will be redirected for the following semester admission consideration. At the end of one year from initial application the files of students who do not enroll are destroyed. Students must pay tuition fees at the time of registration.

International students wishing to attend Shasta College should direct their questions and applications to the Dean of Students, Room 2308).
http://www3.shastacollege.edu/internationalstudents/index.htm or the Admissions and Records Office.

Prerequisites, Corequisites, Limitations on Enrollment and Advisories

FREQUENTLY ASKED QUESTIONS

What is an "advisory on recommended preparation"?
Advisories are intended to identify skills which will broaden or deepen a student's learning experience, but without which the student can still succeed in the course. The college does not block enrollment in a course for lack of advisory skills.

Where can I find advisories for each course?
If a class has an advisory, it will be stated as part of the course description in the Catalog, and will be listed with the course in the Schedule of Classes.

What is a "limitation on enrollment"?
All courses are open to enrollment to any student who has been admitted to the college, with the following exceptions. Title 5 Section 58106 allows the college to limit enrollment in specific courses or programs by using: 1) prerequisites and corequisites; 2) health and safety considerations; 3) practical considerations such as facilities limitations, faculty availability and funding limitations; 4) registration systems such as a first-come-first-served, or priority system; 5) statutory, regulatory, or contractual requirements; 6) auditions and tryouts for intercollegiate competition, honors, or public performances courses, 7) blocks of courses for cohorts of students.

NOTE: Shasta College enforces limitations on enrollment.

How do I know which classes have limitations on enrollment?
If a class has a limitation on enrollment, it will be specifically stated as part of the course description in the Catalog, and will be listed with the course in the Schedule of Classes.

What is a "prerequisite" or "corequisite"?
"Prerequisite" means a condition of enrollment that a student is required to meet in order to demonstrate current readiness for enrollment in a course or educational program. (Title 5, Section 55200(a)) Such a condition of enrollment can be a course or other preparation a student must have before being permitted to enroll in a target course. Prerequisites provide the student with knowledge and/or a set of skills that substantially increase a student's success. For example: Introduction to Managerial Accounting (ACCT 4) has a prerequisite of Introduction to Financial Accounting (ACCT 2) with a grade of "C" or higher.

There are two types of corequisites: two-way corequisites and one-way corequisites. A "two-way" corequisite is when two (or more) courses are so intertwined that neither course stands alone. A student would not have a reasonable chance to be successful in either course without being concurrently enrolled in both courses. A "one-way" corequisite is when one of the courses depends on the content of the other course, but not vice-versa. Here, only one course would list the other as a corequisite. Often, with one-way corequisites, if you have previously completed the corequisite course, you may be qualified to enroll in the target course.

Why does Shasta College enforce prerequisites and corequisites?
We are legally required to enforce prerequisites. The Shasta College faculty has carefully selected prerequisites by evaluating the skills and concepts needed for success in a target course. They are intended to ensure that a student has a reasonable chance for success. For these reasons, enforcement of prerequisites is in the interest of all students.

How can I satisfy a Prerequisite?
There are three ways you can satisfy a prerequisite at Shasta College.

1. *You received a grade of C or higher in the prerequisite course at Shasta College.*
   - *A. If you completed the prerequisite course with a grade of C or higher, you will be allowed to enroll in the target course (as long as space is available.)*
   - *B. If you are currently enrolled in the prerequisite course at the time of registration, you will be allowed to conditionally enroll in the target course (as long as space is available). However, when grades are submitted at the end of the semester, if you did not receive a grade of C or higher in the prerequisite course, you will be dropped from the target course.*

2. *You satisfied the prerequisite through Course Equivalency.*
   There are three ways to satisfy a prerequisite through Course Equivalency: 1) You received a grade of C or higher in an equivalent course at another college, 2) You have a qualifying score on the AP Exam, or 3) You received CLEP credit for the prerequisite course. (For further information about AP Exam scores and CLEP credit, see a counselor, or refer to the Catalog.)

   If you believe you have satisfied the prerequisite through Course Equivalency, then before registration, you should contact Admissions and Records staff, who will direct you through the Course Equivalency Procedure. It is your responsibility to provide supporting documentation, such as transcripts and course description(s) from your previous college(s). You will be allowed to enroll conditionally in the target course for ten working days. If, at the end of ten working days, you cannot provide documentation that you have met the prerequisite through Course Equivalency, then you will be dropped from the course.

3. *You satisfied the prerequisite through Multiple Measures. Shasta College recognizes that you may have gained the prerequisite skills for some courses by means other than the two mentioned above. For example, you may have completed high school courses that covered the same topics as the prerequisite course. Or, perhaps you gained the prerequisite skills through work experience. Whatever the means, if you have gained skills that are equivalent to those that you would get by taking the prerequisite course at Shasta College, you should take your supporting documentation to a Shasta College counselor before you try to register. The counselor will direct you through the Multiple Measures Procedure.*

Note: If you are attempting to register in a course that has Math, English or Chemistry as a prerequisite, then part of the Multiple Measures Procedure might include taking an Assessment Test at the Assessment Center. You are free to take the Assessment Test before you see your Counselor.

Note: Because you will be unable to enroll in the target course until a counselor determines that you have satisfied the prerequisite through Multiple Measures, it is in your best interest to see a counselor before attempting to register for the course.

Note: If you have a disability and believe that you could be successful in the class with reasonable accommodations then see the Counselor for Disabilities, or Learning Disability Specialist, (530) 242-7790, before attempting to register for the course.

Prerequisites, Corequisites, Limitations on Enrollment and Advisories (continued):

What is a Placement Level Number?
In some cases, such as in math and English, the prerequisite is stated in terms of a Placement Level. Your Placement Level is a number that is based on many factors which may include high school course work and Assessment Test scores. You will be assigned a Placement Level after completion of the Course Equivalency and/or Multiple Measures process.

Can I challenge a prerequisite or corequisite?
Yes, you can. The five grounds for a student to challenge a prerequisite or corequisite are:

1) *The student has the knowledge or ability to succeed in the course or program despite not meeting the prerequisite or corequisite*
2) *The prerequisite or corequisite has not been established in accordance with the district's process for establishing prerequisites and corequisites*
3) *The prerequisite or corequisite is in violation of Title 5*
4) *The prerequisite or corequisite is either unlawfully discriminatory or is being applied in an unlawfully discriminatory manner*
5) *The student will be subject to undue delay in attaining the goal of his or her educational plan because the prerequisite or corequisite course has not been made reasonably available, or accessible. For a full description see Title 5, Section 55201(f).*

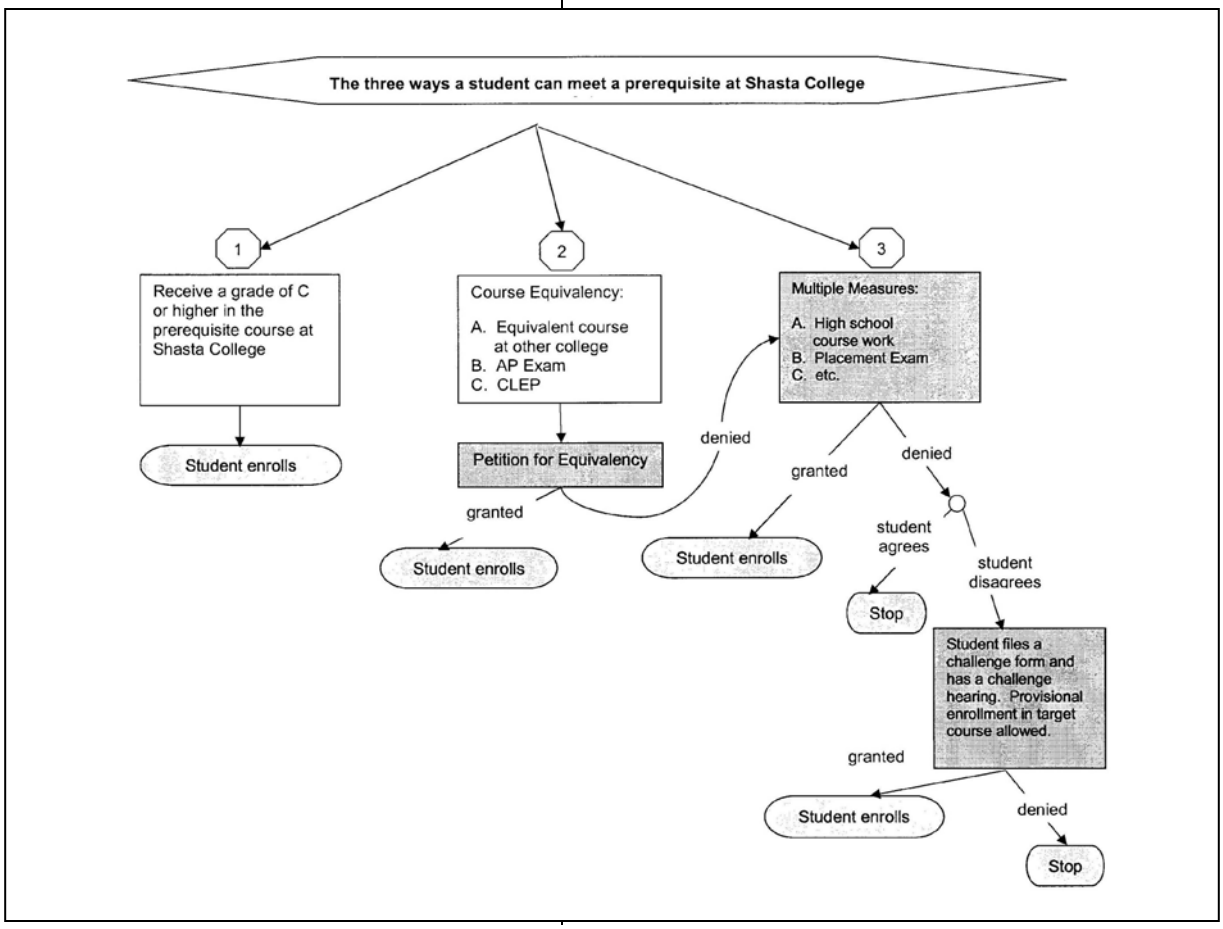
If you believe you have grounds for filing a challenge, go to the Office of Admissions and Records for information on the Prerequisite Challenge Procedure. If you choose to file a challenge, you have the responsibility of showing that grounds exist for the challenge.

Note: If you are citing reason # 1 as the basis for challenging the prerequisite/corequisite, you must first have failed to meet the prerequisite/corequisite through the Multiple Measures Procedure. You should seek advice regarding the challenge from a Counselor.

PREREQUISITE/COREQUISITE CHALLENGE PROCEDURE

The student will obtain a Prerequisite/Corequisite Challenge Form at the Admissions and Records Office. The Office of Instruction will retain documentation of Board Policy and Title 5 regulations regarding prerequisite/corequisite challenges. A student may review this information prior to submitting a Prerequisite/Corequisite Challenge Form. A student who chooses to challenge a prerequisite or corequisite may do so for any of the following reasons:

1. The student has the knowledge or ability to succeed in the course or program despite not meeting the prerequisite or corequisite;
2. The prerequisite or corequisite has not been established in accordance with the district's process for establishing prerequisites and corequisites;



Prerequisite/Corequisite Challenge Procedure (continued):

3. The prerequisite or corequisite is in violation of Title 5;

4. The prerequisite or corequisite is either unlawfully discriminatory or is being applied in an unlawfully discriminatory manner;

5. The student will be subject to undue delay in attaining the goal of his or her educational plan because the prerequisite or corequisite course has not been made reasonably available, or accessible;

If a student is citing reason # 1 as the basis for challenging the prerequisite/corequisite, the student must first have failed to meet the prerequisite/corequisite through the Multiple Measures Procedure.

A statement of specific skills and abilities needed to enter the class for which the challenge is being issued will be made available to the student through the Office of Instruction on any workday.

The student must complete a Prerequisite/Corequisite Challenge Form. The student must attach a completed and signed Multiple Measures Form to the Prerequisite/ Corequisite Challenge Form. The student must return these forms along with the other supporting documentation to the Director of Admissions and Records. The student has the obligation to provide satisfactory evidence that the challenge should be upheld. Without supporting documentation, the application for a challenge will be considered incomplete and the challenge will be denied. When a complete application is filed, the Director of Admissions and Records will forward the Prerequisite/Corequisite Challenge Form and supporting documentation to the appropriate Academic Division Office. The Academic Center staff will arrange a Challenge Hearing.

If the challenge form is submitted during the period when the student is eligible to register for the course, and if space is available, then the student will be conditionally enrolled in the target course until resolution of the challenge is complete.

Two or more faculty members will conduct the Challenge Hearing. If possible, the faculty members will be from a discipline closely related to the target course. The student will have the right to attend and speak at the Challenge Hearing. Staff from the appropriate Academic Division Office will attempt to notify the student regarding the time and location of the Challenge Hearing at least one business day prior to the start of that hearing. The results of the Challenge Hearing will be documented and forwarded to the student and to the Admissions and Records Office within five business days from the date that the challenge was filed with the Director of Admissions and Records. If the college has not made a decision within five working days then the student's challenge is upheld and the Admissions and Records Office will allow the student to enroll in the course.

If a student is citing reason # 2, #3, #4 or #5 as the basis for challenging the prerequisite/corequisite, the student must submit a completed Prerequisite/Corequisite Challenge Form along with supporting documentation to the Vice President of Academic Affairs in the Office of Instruction.

The student has the obligation to provide satisfactory evidence that the challenge should be upheld. Without supporting documentation, the application for a challenge will be considered incomplete and the challenge will be denied. When a complete application is filed, the Vice President of Academic Affairs will conduct a Challenge Hearing. This hearing will include as voting members, the Vice President of Academic Affairs, one faculty from the Curriculum Council and one other faculty, preferably from a discipline closely related to the target course.

The student will have the right to attend and speak at the Challenge Hearing. Staff from the Office of Instruction will attempt to notify the student regarding the time and location of the Challenge Hearing at least one business day prior to the start of that hearing. The results of the Challenge Hearing will be documented and forwarded to the student and to the Admissions and Records Office within five business days from the date that the challenge was filed with the Vice President of Academic Affairs. If the college has not made a decision within five working days then the student's challenge is upheld and the Admissions and Records Office will allow the student to enroll in the course.

Note 1: Students who submit a Prerequisite/Corequisite Challenge Form claiming that a specific disability is a factor in their challenge rationale must forward a copy of the Prerequisite/Corequisite Challenge Form to the Disability Resource Center. The Disability Resource Center will determine if accommodations or academic adjustments are warranted.

Note 2: Students who initiate the challenge procedure during registration may obtain the Prerequisite/Corequisite Challenge Form at the registration site and submit the completed form along with supporting documentation at that site. If space is available, the student will be provisionally enrolled in the target course until resolution of the challenge is complete. Staff at the registration site will time-stamp the form and forward it to the Director of Admissions and Records, or to the Vice President of Academic Affairs as appropriate. The Challenge Procedure will then proceed as outlined above.

Registration and Related Fees

1. Enrollment Fee: Refer to current class schedule or visit the Shasta College website.

2. Student Health Fee: Refer to current class schedule or visit the Shasta College website.

3. Campus Center Fee: Refer to current class schedule or visit the Shasta College website.

4. Out-of-State Tuition: Refer to current class schedule or visit the Shasta College website.

5. Day and evening parking fee: Refer to current class schedule or visit the Shasta College website (Campus

6. Bus Transportation Fee: Refer to current class schedule or visit the Shasta College website.

7. Student Representation Fee (Voluntary): Refer to current class schedule or visit the Shasta College website.

8. Student Events and Activities Fee (Voluntary): Refer to current class schedule or visit the Shasta College website.

NOTE: Fees are subject to change. The fee schedule is published each semester in the Schedule of Classes.

Registration and Related Fees (continued):

Instructions for submitting written request for Shasta College Transcript:
Beginning with initial enrollment, each student is allowed two (2) free official transcripts or enrollment verifications free; each one thereafter is $3.00 (check or money order payable to Shasta College) enclosed with a written request. Allow 10 business days from date request is received by the Admissions and Records Office for processing. If the student has an earlier deadline, please indicate clearly on the request if it is to be considered a RUSH. A fee of $10.00 will be charged for each RUSH TRANSCRIPT REQUEST. A RUSH TRANSCRIPT REQUEST is defined as a request that specifies immediate action outside our normal processing time. Upon payment of this additional fee, we guarantee that the RUSH TRANSCRIPT REQUEST would be processed within two business days from the date the request is received by our office.* Should the RUSH TRANSCRIPT REQUEST be one of the first two free transcripts and/or enrollment verifications to be provided in accordance with Education code Section 76223, the student will be charged only $7.00 for the rush processing component of the request.
*Contingent upon availability of grades.

Mail written request (including student's signature) with payment (if necessary) to: Shasta College Admissions and Records Office, ATTN: Transcript Requests, P.O. Box 496006, Redding, CA 96049-6006.

Students may obtain official or unofficial copies of their Shasta College transcript by contacting the Admissions and Records Office.

REFUNDS
The enrollment fee is refundable if a class is dropped during the first two weeks of the semester or the first 10% of the class (subject to change for short-term classes). IT IS THE STUDENT'S RESPONSIBILITY TO DROP CLASS(ES). The Student Health Fee and the Campus Center Fee is refundable if a student withdraws from college during the first two weeks of instruction (subject to change for short-term classes). All refund drop date information is included on students' computerized receipt. Contact the Admissions and Records Office for the Out-of-State Tuition refund policy. Refunds will be mailed each month. Keep your address current with the Admissions and Records Office.

Students who are awarded a Board of Governors Grant (BOGG) fee waiver after they have paid their enrollment fees will be reimbursed only for the semester in which they are granted a BOGG fee waiver. The BOGG fee waivers will not be applied retroactively to prior semesters.

REFUNDS FOR NON-RESIDENT TUITION IS PRORATED AS FOLLOWS:

Prior to and during first week of instruction	100%
During second week class instruction	75%
During third week class instruction	50%
During fourth week class instruction	25%

After fourth week of class meetings NO REFUNDS WILL BE GIVEN

*Non-Resident tuition refunds for classes less than a full-term length will be prorated according to the above schedule.

*****Shasta College reserves the right to change fees and related refund policy without notice. *****

Residency

Non-Residents: A non-resident student is one who does not have residence in the state of California for more than one year immediately preceding the residence determination date. Residence is that location with which a person is considered to have the most settled and permanent connection; it is also that place where that person intends to remain, and during absences, intends to return. Residence results from the union of physical presence with objective evidence that the intent is to remain at that place for an indefinite period of time. A nonresident student must pay out-of-state tuition at the time he/she registers. Once classified as a nonresident, a student must apply to the Admissions and Records Office for reclassification as a resident.

Special Admits

SPECIAL PART-TIME ENROLLMENT
(FORMERLY CONCURRENT ENROLLMENT)
A high school student wishing to enroll in Shasta College classes must have the permission of his/her high school principal and follow instructions detailed on the form. Forms are available at the local high schools. Advanced approval for all special admits students (K-12th grade) is required by the Director of Admissions and Records before registration will be allowed. All special admit students should review college assessment test requirements as noted on the reverse side of the concurrent enrollment form. Check with Admissions and Records Office for specific details.

Veterans Educational Benefits

Please see Chapter 7 – Student Support for details.

California Nonresident Tuition Exemption

For Eligible California High School Graduates
(The law passed by the Legislature in 2001 as "AB 540")

GENERAL INFORMATION

Any student, other than a nonimmigrant alien, who meets all of the following requirements, shall be exempt from paying nonresident tuition at the California Community Colleges, the University of California, and the California State University (all public colleges and universities in California).

- Requirements:
  - The student must have attended a high school (public or private) in California for three or more years.
  - The student must have graduated from a California high school or attained the equivalent prior to the start of the term (for example, passing the GED or California High School Proficiency exam).
  - An alien student who is without lawful immigration status must file an affidavit with the college or university stating that he or she has filed an application to legalize his or her immigration status, or will file an application as soon as he or she is eligible to do so.
- Students who are nonimmigrants [for example, those who hold F (student) visas, B (visitor) visas, etc.] are not eligible for this exemption.
- The student must file an exemption request including a signed affidavit with the college that indicates the student has met all applicable conditions described above. Student information obtained in this process is strictly confidential unless disclosure is required under law.
- Students eligible for this exemption who are transferring to another California public college or university must submit a new request (and documentation if required) to each college under consideration.
- Nonresident students meeting the criteria will be exempted from the payment of nonresident tuition, but they will *not* be classified as California residents. They continue to be "nonresidents."
- AB540 does not provide student financial aid eligibility for undocumented alien students. These students remain ineligible for state and federal financial aid.

PROCEDURES FOR REQUESTING THIS EXEMPTION FROM NONRESIDENT TUITION

California Community Colleges: Complete the form on the reverse. Submit it to the Admissions Office at the community college where you are enrolled or intend to enroll. You may be required to submit additional documentation. Call the college Admissions Office if you have questions.

University of California: The University of California (UC) system has its own nonresident tuition exemption application and affidavit form, but it will accept the exemption request form used by the California Community Colleges and the California State University. Your campus has established deadlines for submission of exemption requests; however, requests are not to be submitted until you have been admitted to a UC campus. Some students, such as transfer, graduate, and professional students, also must submit their official high school transcripts; check your campus for specific instructions. Once you are determined to be eligible for the exemption, you will continue to receive it as long as you fulfill the eligibility requirements or until the University no longer offers this exemption. The exemption covers the Nonresident Tuition Fee and the Educational Fee differential charged to nonresident students. Applying for the exemption does not alter your responsibility to pay by the campus deadline any nonresident tuition and associated fees that may be due before your eligibility is determined. For campus-specific instructions regarding documentation and deadline dates, contact the campus Office of the Registrar.

California State University: Complete the form on the reverse. Contact the Office of Admissions and Records at the CSU campus where you are enrolled or intend to enroll for instructions on submission, deadline information, and additional requirements. You will be required to submit final high school transcripts and appropriate records of high school graduation or the equivalent, if you have not done so already. Call the Office of Admissions and Records at the campus if you have questions.

Instructions for Shasta College Students: Please submit an official copy of your high school transcript documenting three years of attendance AND proof of your high school graduation OR a copy of your G.E.D. or California Proficiency Certificate. Any questions should be directed to the Shasta College Admissions office, ATTN: Residency Technician at (530) 242-7664. 3/07

California Nonresident Tuition Exemption Request

For Eligible California High School Graduates
SHASTA COLLEGE ADMISSIONS AND RECORDS OFFICE – PO Box 496006 – Redding, CA 96049-6006

Note: This form is accepted by all California Community Colleges and all Universities in the both the University of California and California State University systems.

Complete and sign this form to request an exemption from Nonresident Tuition. You must submit any documentation required by the College or University (for example, proof of high school attendance in California). Contact the California Community College, University of California, or California State University campus where you intend to enroll (or are enrolled) for instructions on documentation, additional procedures and applicable deadlines.

ELIGIBILITY:

I, the undersigned, am applying for a California Nonresident Tuition Exemption for eligible California high school graduates at (specify the college or university)_____ and I declare the following:

Check YES or NO boxes:

☐ Yes ☐ No I have graduated from a California high school or have attained the equivalent thereof, such as a High School Equivalency Certificate, issued by the California State GED Office or a Certificate of Proficiency, resulting from the California High School Proficiency Examination.

☐ Yes ☐ No I have attended high school in California for three or more years.

Provide information on all school(s) you attended in grades 9 - 12:

School	City	State	Dates: From – Month/Year	To – Month/Year

Documentation of high school attendance and graduation (or its equivalent) is required by the University of California, the California State University and some California Community Colleges. Follow campus instructions.

Check the box that applies to you -- check only one box:

☐ I am a nonimmigrant alien as defined by federal law. [Nonimmigrant aliens have been admitted to the United States temporarily and include, but are not limited to, foreign students (persons holding F visas) and exchange visitors (persons holding J visas).]

OR

☐ I am NOT a nonimmigrant alien. [U.S. citizens, permanent residents, or aliens without lawful immigration status, among others, should check this box.]

AFFIDAVIT:

I, the undersigned, declare under penalty of perjury under the laws of the State of California that the information I have provided on this form is true and accurate. I understand that this information will be used to determine my eligibility for the nonresident tuition exemption for eligible California high school graduates. I hereby declare that, if I am an alien without lawful immigration status, I have filed an application to legalize my immigration status or will file an application as soon as I am eligible to do so. I further understand that if any of the above information is untrue, I will be liable for payment of all nonresident charges from which I was exempted and may be subject to disciplinary action by the College or University.

Print Full Name (as it appears on your campus student records)	Campus/Student Identification Number
Print Full Mailing Address (Number, Street, City, State, Zip Code)	Email Address (Optional) Phone Number (Optional)
Signature	Date

RETURN COMPLETED FORM TO SHASTA COLLEGE ADMISSIONS AND RECORDS OFFICE FOR APPROVAL

Revised 3/07

Chapter 3 - Finance

Debts Owed to the College

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, 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.

Financial Aid for Enrollment Fees

If you are a California resident, you may qualify for a Board of Governors Grant (BOGG) fee waiver to cover your enrollment fee. There are three ways to qualify for enrollment fee assistance:

1. For 2008-09, if you fall within these income levels:

Number in Household (including yourself)	2007 Total Family Income (Adjusted Gross Income and/or Untaxed Income)
1	$15,315 or less
2	$20,535 or less
3	$25,755 or less
4	$30,975 or less
+	Add $5,220 for each additional dependent

2. If you or your family receives any ONE of the following types of untaxable income:
   a. Aid to Families with Dependent Children (TANF/CALWORKS); or
   b. Supplemental Security Income (SSI/SSP); or
   c. General Assistance/General Relief

3. Special Classification:
   a. Deceased/Disabled Veteran's Dependent's Fee Waiver – certification provided by the California Department of Veteran's Affairs or your county Veteran's Service Office or the National Guard Adjutant General.
   b. A recipient of the Congressional Medal of Honor or a child of a recipient, or a dependent of a victim of the September 11, 2001 terrorist attack.
   c. A dependent of a deceased law enforcement/fire suppression personnel killed in the line of duty.

You may also qualify for the BOGG fee waiver by filing the Free Application for Federal Student Aid (FAFSA). In addition to enrollment fee assistance, you may qualify for funds to pay for books, supplies, transportation, child care, and more.

DEADLINES: To file for a BOGG fee waiver with the FAFSA, apply NOW. Applications take a minimum of eight (8) weeks to process. For enrollment fee assistance only, apply one (1) week prior to registration.

Students who are awarded a Board of Governors Grant (BOGG) fee waiver after they have paid their enrollment fees will be reimbursed only for the semester in which they are granted a BOGG fee waiver. The BOGG fee waivers will not be applied retroactively to prior semesters.

For further information contact: SHASTA COLLEGE FINANCIAL AID OFFICE, Room 108: (530) 242-7700.

Registration and Related Fees

1. Enrollment Fee: Refer to current class schedule or visit the Shasta College website.
2. Student Health Fee: Refer to current class schedule or visit the Shasta College website.
3. Campus Center Fee: Refer to current class schedule or visit the Shasta College website.
4. Out-of-State Tuition: Refer to current class schedule or visit the Shasta College website.
5. Day and evening parking fee: Refer to current class schedule or visit the Shasta College website (Campus Security).
6. Bus Transportation Fee: Refer to current class schedule or visit the Shasta College website.
7. Student Representation Fee (Voluntary): Refer to current class schedule or visit the Shasta College website.
8. Student Events and Activities Fee (Voluntary): Refer to current class schedule or visit the Shasta College website.

NOTE: Fees are subject to change. The fee schedule is published each semester in the Schedule of Classes.

Instructions for submitting written request for Shasta College Transcript:
Beginning with initial enrollment, each student is allowed two (2) free official transcripts or enrollment verifications free; each one thereafter is $3.00 (check or money order payable to Shasta College) enclosed with a written request. Allow 10 business days from date request is received by the Admissions Office for processing. If the student has an earlier deadline, please indicate clearly on the request if it is to be considered a RUSH. A fee of $10.00 will be charged for each RUSH TRANSCRIPT REQUEST. A RUSH TRANSCRIPT REQUEST is defined as a request that specifies immediate action outside our normal processing time. Upon payment of this additional fee, we guarantee that the RUSH TRANSCRIPT REQUEST would be processed within two business days from the date the request is received by our office.* Should the RUSH TRANSCRIPT REQUEST be one of the first two free transcripts and/or enrollment verifications to be provided in accordance with Education code Section 76223, the student will be charged only $7.00 for the rush processing component of the request.

*Contingent upon availability of grades.

Mail written request (including student's signature) with payment (if necessary) to: Shasta College Admissions Office, ATTN: Transcript Requests, P.O. Box 496006, Redding, CA 96049-6006.

Students may obtain official or unofficial copies of their Shasta College transcript by contacting the Admissions and Records Office.

REFUNDS

The enrollment fee is refundable if a class is dropped during the first two weeks of the semester or the first 10% of the class (subject to change for short-term classes). IT IS THE STUDENT'S RESPONSIBILITY TO DROP CLASS(ES). The Student Health Fee and the Campus Center Fee is refundable if a student withdraws from college during the first two weeks of instruction (subject to change for short-term classes). All refund drop date information is included on students' computerized receipt. Contact the Admissions Office for the Out-Of-State Tuition refund policy. Refunds will be mailed each month. Keep your address current with the Admissions and Records Office.

Refunds (continued):

Students who are awarded a Board of Governors Grant (BOGG) fee waiver after they have paid their enrollment fees will be reimbursed only for the semester in which they are granted a BOGG fee waiver. The BOGG fee waivers will not be applied retroactively to prior semesters.

REFUNDS FOR NON-RESIDENT TUITION IS PRORATED AS FOLLOWS:

Prior to and during first week of instruction	100%
During second week class instruction	75%
During third week class instruction	50%
During fourth week class instruction	25%

After fourth week of class meetings NO REFUNDS WILL BE GIVEN

*Non-Resident tuition refunds for classes less than a full-term length will be prorated according to the above schedule.

*****Shasta College reserves the right to change fees and related refund policy without notice. *****

Financial Aid/Scholarships

(530) 242-7700 Room 108

FINANCIAL AID

Shasta College has an extensive financial assistance program designed to assist you if you are unable to pursue your education without such help. Grants, loans, part-time employment and scholarships are available to meet the difference between what you and your family should reasonably be expected to provide, and the expected cost of attending Shasta College.

In determining the type and amount of financial assistance necessary to meet a financial deficit, the college, in keeping with regulations governing the administration of federal financial aid programs, expects the parents to make maximum effort to assist their sons and daughters with college expenses. It is anticipated that each student also should contribute toward his/her education costs.

The financial contribution from the college should be viewed only as supplementary to the financial resources of the applicant and his/her family. See the Shasta College website for complete information.

ABILITY TO BENEFIT STUDENT

The Higher Education Technical Amendments of 1991 (Public Law 102-26, enacted April 9, 1991) made several changes that affect the student financial assistance programs authorized by the Higher Education Act of 1965, as amended (HEA). This law mandates new student eligibility requirements for students not possessing a high school diploma or equivalent who seek Title IV student financial assistance. Section 484(d) of the HEA requires for periods of enrollment beginning on or after July 1, 1991 that in order to be eligible to receive Title IV aid, a student who lacks a high school diploma or its equivalent must pass an independently administered test approved by the Secretary of Education.

A student enrolling at Shasta College and applying for financial aid who does not have a high school diploma, GED or high school proficiency certificate must achieve a specific score on the test. Because of this federal law, the college cannot fund anyone without a high school diploma or equivalent or the appropriate score on a U.S. Department of Education approved test. Please contact the Financial Aid Office for additional information.

SCHOLARSHIPS

The Financial Aid Office administers a scholarship program that awards more than $160,000 to students each year. Not all scholarships are based on academic achievement; some consider financial need, ethnicity, field of study, and other criteria. Shasta College scholarship offerings are exclusively available to Shasta College students.

IMPORTANT DATES TO REMEMBER

March 2	Priority filing date for financial aid. After this date funds are awarded on a first-come, first-served basis.
August 20	Fall scholarship applications available.
October 10	Deadline for Fall scholarship applications.
December 1	Spring scholarship applications available.
February 17	Deadline for Spring scholarship applications.

PLEASE NOTE: EMERGENCY REGISTRATION/BOOKS LOANS ARE AVAILABLE FOR STUDENTS WHO QUALIFY.

Chapter 4 – Grading and Academic Standards

Audit

Please see Chapter 2 – Admission and Enrollment Information for details.

Pass/No Pass Policy

Shasta College offers two categories of "Pass/No pass" courses. "Pass/No Pass" classes are designated in the college catalog and schedule of classes. The catalog and schedule must specify into which "Pass/No Pass" category each course falls: (Title 5, 55752 (a))

1. "Pass/No Pass" Course: All students are evaluated on a "pass/no pass" basis. Included are courses where there is a single satisfactory standard of performance which shall use P/NP to the exclusion of other grades. "Pass" shall be assigned for meeting that standard, "No Pass" for failure to do so. (Title 5, 55752 (a) (1))
2. "Pass/No Pass" Option: Courses that the Vice President of Academic Affairs has designated as "pass/no pass" and wherein each student may elect no later than the end of the first 30% of the term, whether the basis of evaluation is to be "pass/no pass" or a letter grade. Courses completed under the "pass/no pass" count toward graduation and transfer within the following limitations. (Title 5, 55752 (a) (2))
    a. Students may not use "pass/no pass" grade options for courses required in their major or minor field of study.
    b. Students may not use "pass/no pass" grade option in more than one course per semester, and may apply no more than ten semester credits taken toward the A.A./A.S. degree.
    c. It is the responsibility of the student to be familiar with the "pass/no pass" policy currently in force.

Grading Definitions

The course grading procedure is based on the established course objectives according to the following grade definitions:

A – Excellent - Outstanding achievement of the course objectives. (4 grade points)

B – Good - Above average achievement of the course objectives. The quality of work demonstrates a comprehensive knowledge of the subject matter and a marked ability to interpret it. (3 grade points)

C – Fair to Average - Satisfactory or average achievement of the course objectives. The performance fulfills the course requirements in both quality and quantity and meets acceptable standards for graduation. (2 grade points)

D – Passing - Less than satisfactory achievement below the course objectives but such that it s not necessary to repeat the course. The level of achievement is not generally satisfactory for advancement in studies in the same or related areas. (1 grade point)

F – Failing - Failure to achieve objectives of the course. The performance is undeserving of course credit. (0 grade points)

P - Pass - Satisfactory achievement of course objectives. Student is passing the course with a "C" or better. (Not used in grade point calculations.)

NP - No Pass - Student is doing "D" or "F" work in the course. (Not used in grade point calculations.)

Non-Evaluative Symbols Definitions

I – Incomplete - 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 student's record. The condition for removal of the "I" shall be stated by the instructor in a written record (Form available from the registrar). This record shall contain the conditions for removal of the "I" and the grade assigned in lieu of its removal. This record must be given to the student with a copy on file with the registrar 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" may be made up no later than one year following the end of the term in which it was assigned, however, the student may petition the Scholastic Standards Committee for a time extension due to unusual circumstances.

IP - In progress - The "IP" symbol shall be used to denote that the class extends beyond the normal end of an academic term. It indicates that work is "in progress", but that the assignment of a substantive grade must await its completion. The "IP" symbol shall remain on the student's permanent record in order to satisfy enrollment documentation. The appropriate evaluative grade and unit credit shall be assigned and appear on the student's record for the term in which the course is completed. The "IP" shall not be used in calculating grade point averages.

RD - Report Delayed - The "RD" symbol shall be assigned by the registrar 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.

MW – Military Withdrawal – Military withdrawal occurs when a student who is a member of an active or reserve United States military service receives orders (other than TDY) compelling a withdrawal from courses. A student must file a petition requesting this option and attach a copy of military orders at the Admissions and Records Office. Military withdrawals will not be counted in progress probation and dismissal calculations. See the Dean of Enrollment Services for specific details.

W - Withdrawal - Students may withdraw from a class after the official "drop" date and up through the fourteenth week* or 75% of the term for classes less than a semester in length. The notation "W" will appear on the student's transcript and will not be used in calculation of grade point average. Excessive "W"s shall, however, be used as factors in probation and dismissal procedures. IT IS THE STUDENT'S RESPONSIBILITY TO OBTAIN FORMS AND SUBMIT THE NECESSARY PAPERWORK TO WITHDRAW FROM A CLASS(ES). Forms are available from Admissions and Records, Extended Education sites, or by mail. Students who have not dropped or withdrawn from a class before the end of the fourteenth week or 75% of the term will be assigned a course grade.

*This date may vary for classes of less than a full-term length.

Grading

It is the responsibility of the instructor for the assignment of grades in any Shasta College course. To insure that grading is done consistently and fairly, the instructor shall:

1. Develop a grading procedure prior to the beginning of the course and have this procedure clearly communicated to each student on the first day handout of each course.

2. Establish a grading procedure that shall guarantee the academic integrity of the course at the appropriate level.

3. Once established, adhere to the course grading procedure throughout the semester.

4. Give sufficient evaluations throughout the course to insure that students are aware of progress and to inform the students of standing in the course.

5. Abide by established examination schedules of the college.

6. Adhere to established deadlines and use appropriate forms for submitting grades to the Records Office.

7. File all grade changes within two (2) years of the original grade being issued.

GRADE CHANGE PROCEDURE

Under no circumstances except for completion of work for removal of an incomplete, may a grade change be made as the result of work completed or presented following the close of a grading period (Administrative Procedure 4231). The Incomplete (I) may be made up no later than one year following the end of the term in which it was assigned. (Note: Fall 79 to Fall 81 students had one semester in which to make up incompletes. Beginning with Fall 81 a written record must be filed by the instructor stipulating the condition to be made for an evaluative grade. ALL GRADE CHANGES MUST BE SUBMITTED DIRECTLY FROM INSTRUCTOR TO ADMISSIONS OFFICE.

GRADE APPEAL PROCEDURE – BOARD POLICY 4230

The instructor of the course shall determine the grade to be awarded to each student. The determination of the student's grade by the instructor is final in the absence of mistake, fraud, bad faith, or incompetence.

The procedure for appealing a grade is available at the Admissions and Records Office.

Non-Traditional Ways to Earn Credit

ADVANCED PLACEMENT EXAMINATION CREDIT

Shasta College will award credit to students scoring a 3, 4, or 5 on Advanced Placement examinations as indicated below. Students should have test scores sent to the Shasta College Admissions and Records Office and then contact the office during their first semester to have credit posted to their transcripts. Each transfer institution will determine the number of units awarded and the courses satisfied according to individual campus policies. For specific course information, students are encouraged to meet with a counselor.

All CSU campuses will accept the minimum units shown below toward fulfillment of the designated General Education-Breadth area if the examination is included in a full or subject-area certification. Individual CSU campuses may choose to accept more units than those specified below toward completion of General Education-Breadth requirements. The CSU campus to which the student is transferring determines the total number of units awarded for successful completion of an Advanced Placement examination and the applicability of the examination to other graduation requirements.

The University of California grants credit for all Advanced Placement examinations on which a student scores 3 or higher. The credit may be subject credit, graduation credit, or credit toward General Education or breadth requirements, as determined by evaluators at each campus. Shasta College will certify the units for the IGETC General Education area indicated below.

AP Subject Exam	Semester Units	CSU GE	IGETC
Art: History of Art	3 units	Area C1	Area 3A
Art Drawing/Studio	3 units		
Biology	3 units	Area B2	Area 5B
Chemistry	6 units	Area B1/B3	Area 5A
Chinese Lang. & Culture	3 units	Area C2	Area 3B
Economics: Macro	3 units	Area D2	Area 4B
Economics: Micro	3 units	Area D2	Area 4B
English: English Lang/Comp	3 units	Area A2	Area 1A
English: English Lit/Comp	6 units	Area A2/C2	Area 1A
Environmental Science	3 units	Area B2	Area 5B
French: French Language	6 units	Area C2	Area 6A
French: French Literature	6 units	Area C2	Area 6A
German Language	6 units	Area C2	Area 6A
Government and Politics: U.S.	3 units	Area D8	Area 4H
Gov. & Politics: Comparative	3 units	Area D8	Area 4H
History: European History	3 units	Area D6	Area 4F
History: US History	3 units	AreaD6	Area 4F
History: World	3 units	Area D6	Area 4E
Human Geography	3 units	Area D5	Area 4D
Italian Lang. & Culture	3 units	Area C2	Area 3B
Japanese Lang. & Culture	3 units	Area C2	Area 3B
Latin: Vergil	3 units	Area C2	
Latin: Latin Literature	3 units	Area C2	
Mathematics: Calculus AB	3 units	Area B4	Area 2A
Mathematics: Calculus BC	3 units	Area B4	Area 2A
Music Theory	3 units	Area C1	
Physics B	6 units	Area B1/B3	Area 5A
Physics C (Mechanics)	3 units	Area B1/B3	Area 5A
Physics C (Elect/Magnet)	3 units	Area B1/B3	Area 5A
Psychology	3 units	Area D9	Area 4I
Spanish: Spanish Language	6 units	Area C2	Area 6A
Spanish: Spanish Literature	6 units	Area C2	Area 6A
Statistics	3 units	Area B4	Area 2A

CHALLENGE (CREDIT BY EXAMINATION) – BOARD POLICY 4235

A student may challenge a class by taking an examination. Examinations may be taken only once and, if passed, the credit will be posted on the student's permanent academic record. No more than 15 units may be earned through this procedure and only courses determined by each Division of the college are open for the option.

This option is restricted to students registered for credit during the fall or spring semester. Credit by examination is not possible during the summer session. Petition (challenge) forms are available from each Division office. A listing of approved courses can be obtained from the Division office.

CREDIT THROUGH THE COLLEGE LEVEL EXAMINATION PROGRAM (CLEP) – BOARD POLICY 4235

Upon completion of six semester units at Shasta College, a student may submit official College Level Examination Program (CLEP) test results to Shasta College from the College Entrance Examination Board (CEEB). Contact the CEEB for a testing center location (Shasta College is not a testing center). CEEB established the program to serve students who have a college-level education developed outside of the classroom (e.g. military experience/training). The following restrictions apply:

- Up to 30 semester units may be applied toward an Associate degree.
- A scaled score of 50 or higher on a CLEP examination will earn credit. (For the older General Examinations, a score of 500 or better will earn credit.)
- Units awarded for satisfactory completion of CLEP examinations will post as electives, except as noted by departmental policy referenced below.
- Grades and grade points will not be assigned to CLEP units.
- Units awarded through CLEP will not apply toward the 12-unit residency requirement for Shasta College.
- The University of California (UC) does not accept credit awarded through CLEP.
- Where considered by the appropriate department and division, CLEP Examinations may satisfy specific courses or a specific course prerequisite. Contact the appropriate department or Division to determine which, if any, of the examinations may satisfy specific courses or course prerequisites. Minimum scores for Shasta College course equivalencies, where established, may be obtained from Admissions and Records.
- Contact Admissions and Records Office or Counseling for more information.
- Shasta College will grant credit for the following CLEP Subject Exams in accordance with the CSU system-wide policy:

College Algebra & Trigonometry/Passing Score: 50/3 semester units
Calculus & Elementary Functions/Passing Score: 50/3 semester units
General Chemistry/Passing Score: 50/3 semester units

DISTANCE EDUCATION (DE)

DE is a method of instruction that is designed to offer courses in other than the conventional classroom setting. Courses are available at each of the main Extended Education Campuses (Burney, Red Bluff, and Weaverville) as well as on campus and other locations throughout the District.

Courses are offered in a variety of formats, but all formats may not be available at all locations. Formats include: online, hybrid, web-enhanced, and Interactive Television (ITV). In addition to the instructional formats, all courses include substantial readings, interaction with faculty, and exams. In many cases, much of the course work may be completed off campus. Courses are available in a variety of disciplines and meet the transfer, General Education, or vocational requirements for the specific course being taught.

All courses offered in these formats offer the same rigorous learning experience found in face-to-face courses. These courses are designed for individuals who are unable to attend campus classes on a regular basis, prefer independent learning, or would like to take courses at their convenience. Students who are usually successful in Distance Education courses are those who enjoy learning independently, are highly motivated, and possess good study skills.

Internet-based Courses: A variety of courses are available fully online. As with face-to-face courses, internet courses usually have set deadlines but offer the student greater flexibility since class meetings typically take place asynchronously online. Students in online courses should have regular access to the internet and should be proficient at email, web navigation, and sending attachments. Some courses ("Hybrid" courses) are offered in a mixed format, combining face-to-face instruction with online instruction or online instruction with an ITV component.

Interactive Television (ITV) Courses: A variety of courses are available at selected sites using two-way interactive video technology. These courses originate on the Redding campus or one of the Extended Education Campuses with real time delivery of the classroom activities to the other sites. Students are able to fully interact with the faculty member and other students at each of the sites.

INDEPENDENT STUDY

Independent study provides a forum for advanced work in a given field of study. A student may contract with a full-time instructor to do independent study in a specific subject area in which he/she has exhausted the regular curricular offerings provided that:

99 - **Transfer Level Courses*** -- The student has a declared major or already possesses a degree and has completed a minimum of 12 transfer units at Shasta College.

199 - **Non-Transfer Level Courses*** -- The student has completed a minimum of 12 units at Shasta College

Independent study can be taken for .5-2 units. The total hours required are as follows:

.5 unit = 27 hours; 1.0 unit = 54 hours; 1.5 units = 81 hours; and 2.0 units = 108 hours

*Note: Any combination of these courses may be repeated three times (total of four enrollments) or a maximum of four independent study units.

Forms and additional information are available from your instructor or the Division Office.

MILITARY EXPERIENCE

In general, Shasta College will follow the recommendations of the State Board of Educ., the Univ. of Calif., and the American Council of Education in granting credit for military experience. Total credit for military experience is limited to 15 units.

Correspondence courses given by the United States Armed Forces Institute or by an accredited college or university are accepted for credit value as recommended by the American Council on Education. College credit will not be allowed for duplicated training. The total number of units granted for USAFI courses shall not exceed 24 units. No credit will be given at Shasta College for General Education Development tests.

Credits will be granted to those students who present a DD214. The student will be required to provide the Registrar with a copy of his/her DD214 for verification.

Application for such credit must be made on a form obtained from the Registrar's Office at Admissions and Records. This credit must be verified. All new Veterans to Shasta College should call for information and an appointment at (530) 242-7662 or visit the Admissions and Records Office, Bldg. 100.

PRIOR WORK EXPERIENCE

A student having experience related to the program in which he/she is enrolled may be granted credit for such experience. The credit is applicable only for an Associate degree at Shasta College. Students applying for credit should obtain an application from the Admissions & Records Office.

WORKSITE LEARNING

Students who are interested in combining practical work experience with classroom instruction may enroll in a Worksite Learning class. Worksite Learning classes (the complete list of courses provided below) are open entry. This means that the student may enroll throughout the semester, but must complete all work by the end of the semester (per agreement with instructor). One unit of Worksite Learning credit is granted for each 75 hours of actual on-the-job activity for a paid work position or 60 hours for a non-paid work position of on-the-job activity. It is imperative for the student to determine how many units he/she should sign up for. This should be worked out with the instructor in the initial orientation meeting. If the student is unable to verify enough work hours to meet the units for which he/she enrolls, the student will receive an "F" in the course. For example, if a student enrolls in a three (3)-unit worksite learning class and fails to verify 225 paid hours of on-the-job activity by the deadline established by the instructor, the student will receive an "F" in the class. The student has the same withdrawal and add/drop options as for any other course.

The following courses are listed in the catalog under the appropriate disciplines as worksite learning classes. For details look under the specific prefixes. The classes, units, instructors, and times of the initial orientation meetings for each semester are listed in the current schedule of classes. Not all worksite learning classes are offered every semester.

Worksite Learning Classes:
ADJU 94, AUTO 94, BUAD 94, CAS 94, CIS 94 , CONS 94, COOP 94, CULA 94 , DIES 94, DSS 94, ECE 94, EDUC 94, ELEC 94, ENGR 94, ENVR 94, FIRS 94, FSS 94, GIS 94, HEOC 94, HORT 94, HOSP 94, HUSV 94, LEGL 94, MKTG 94, OAS 84, PEAT 94, WELD 94, WSL 94 *

Please note that it is up to the instructor in the specific discipline to determine if the student's proposed work assignments are related to the student's major. If a proposed work assignment is not discipline/major related, credit will not be granted.

Each worksite learning course has a prerequisite or co-requisite. Check the course description for specific information.

*WSL 94 is considered a General Work Experience course for supervised employment that is intended to assist students in acquiring desirable work habits, attitudes and career awareness. The work experience need not be related to the students' educational goals.

FINANCIAL AID STUDENTS: Worksite learning will NOT be paid unless it is required for the student's major.

VETERAN STUDENTS: Worksite learning will NOT be paid unless it is required for the student's major. In addition, veterans receiving veteran's educational benefits for WSL units MUST register for the appropriate co-requisite in the same semester.

Repetition of a Course

Repetition of a college course is restricted and shall occur only under the following conditions:

1. Students receiving a D, F, or NC grade in a course may repeat the course once without petition (Title 5, 55761).

2. In order to repeat a course more than once, or to repeat a course in which an A, B, or C grade was earned, the student must petition the Scholastic Standards Committee for permission prior to enrolling in the course. Decisions of the Scholastic Standards Committee may be appealed to the Superintendent/President. When a course is repeated under the provision, the grade awarded shall not be calculated in the student's grade point average (Title 5, 55763).

Scholastic Deficiency

For the purposes of Board Policy, the phrases "units attempted", "all units", or "all units attempted", mean all units of credit for which the student was enrolled at Shasta College regardless of whether the student completed the course or received any credit or grade. This specifically includes all "credit", "no credit", "I", and "W" grades. The word "semester" shall refer to the Fall and Spring terms. The condensed summer session is not considered a "semester."

STANDARDS FOR PROBATION

a. Academic Probation - A student who has attempted at least 12 semester units as shown by the official academic record shall be placed on academic probation if the student has earned a cumulative grade point average below 2.0 in all units which were graded on the basis of the grading scale described in Board Policy, Section 6440.

b. Progress Probation - A student who has attempted at least 12 units as shown by the official academic record shall be placed on progress probation when the percentage of all units in which a student has enrolled and for which entries of "W", "I", and "NC" are recorded reaches or exceeds fifty percent (50%).

c. For record purposes, any changes made in the student's class schedule as a result of a counselor recommendation shall be treated as occurring within the first four weeks of the semester or 30% of the term for classes less than a semester in length.

Scholastic Deficiency (continued):

REMOVAL FROM PROBATION

a. A student on academic probation for a grade point deficiency shall be removed from probation when the student's accumulated grade point average is 2.0 or higher.
b. A student on progress probation because of an excess of units for which entries of "W", "I", and "NC" are recorded shall be removed from probation when the percentage of units in this category drops below fifty percent (50%).

EXTENSION OF PROBATION

a. A student on academic probation who earns a grade point average of 2.0 or better for the semester, but whose cumulative grade point average still results in academic probation, shall have his/her probation extended an additional semester prior to dismissal.
b. A student on progress probation who completes more than 50% of all units attempted for the semester, but whose cumulative records still results in progress probation, shall have his/her probation extended an additional semester prior to dismissal.

Standards for Academic Dismissal

For purposes of this section, semesters shall be considered consecutive on the basis of the student's enrollment (for example, a fall semester followed by a fall semester shall be considered consecutive if the student was not enrolled in the spring semester of that academic year).

A student who is on academic probation shall be dismissed if the student earned a cumulative grade point average of less than 2.0 in all units attempted and graded in each of three consecutive semesters, including the semester that placed the student on probation (which were graded on the basis of the grading scale described in Board Policy, Section 6440).

A student who has been placed on progress probation shall be dismissed if the percentage of units in which the student has been enrolled for which entries of "W", "I", and "NC" (as defined in Board Policy, Section 6440) are recorded in at least three consecutive semesters reaches or exceeds fifty percent (50%) in accordance with Board Policy, Section 6440.

NOTIFICATION OF DISMISSAL

The Admissions and Records Office shall make every reasonable effort to notify a student of dismissal from Shasta College due to academic disqualification as soon as that information is available following the completion of the semester. If a dismissed student has already enrolled in classes for a fall or spring semester, the Admissions and Records Office will dis-enroll the student retroactively as of the first day of the new term. The Admissions and Records Office will notify the student in writing of this action. Dismissal does not apply to summer school.

REINSTATEMENT

A student who has been dismissed from Shasta College because of academic or progress disqualification must meet with a counselor and then file a request for reinstatement with the Admissions and Records Office. A dismissed student may be reinstated after an absence of one or more fall or spring semesters. This will not preclude the student from being eligible for priority registration.

(a) Academic Dismissal. A student who was dismissed because of academic probation must earn satisfactory grades (a grade point average of 2.0 or better) during the semester of reinstatement. A student who does not earn the required grade point average will be dismissed.

(b) Progress Dismissal. A student who was dismissed because of progress probation must satisfactorily complete more than 50% of all units attempted during the semester of reinstatement. A student who does not complete the required percentage of units will be dismissed.

APPEAL

Any student may appeal probation or dismissal procedures and regulations if that student feels there are special mitigating circumstances. All appeals shall be sent to the Scholastic Standards Committee, accompanied by a report from the student's counselor.

Withdrawing From a Class with a "W" Grade

Students may withdraw from a class after the official "drop" date and up through the fourteenth week* or 75% of the term for classes less than a semester in length. The notation "W" will appear on the student's transcript and will not be used in calculation of grade point average. Excessive "W"s shall, however, be used as factors in probation and dismissal procedures.

IT IS THE STUDENT'S RESPONSIBILITY TO OBTAIN FORMS AND SUBMIT THE NECESSARY PAPERWORK TO WITHDRAW FROM CLASS(ES). Forms are available from Admissions and Records, Extended Education sites, or by mail. Students who have not dropped or withdrawn from a class before the end of the fourteenth week or 75% of the term will be assigned a course grade.
*This date may vary for classes of less than a full-term length.

Chapter 5 – Degrees, Programs and Certificates

Associate Degree Requirements

Shasta College awards both the Associate in Arts degree and the Associate in Science degree. The pattern of course offerings at Shasta College is designed to be as flexible as possible in meeting individual student needs. Students may enroll in courses for which they qualify without any formal diploma or degree goals. Students have the following options available: Associate in Arts degree, Associate of Science degree, or certificate of completion.

Upon completion of the following requirements a student at Shasta College will be granted an Associate Degree. Responsibility for filing an application for graduation rests with the student and all transcripts for high school and prior college work attempted must be on file for the application to be considered. Both state and local requirements for the degree are listed below. Students at Shasta College have the opportunity to prepare for transfer to a four-year institution in virtually any major offered by those colleges or universities.

I. **UNIT REQUIREMENT** - At least sixty (60) semester units of course work.

II. **SCHOLARSHIP REQUIREMENT** - An overall grade point average of not less than 2.00 ("C" average) based on all college work attempted.

III. **RESIDENCE REQUIREMENT** - The last twelve (12) semester units of the sixty (60) semester units must be completed in residence at Shasta College immediately prior to graduation or a minimum of forty-eight (48) semester units must have been completed in residence at Shasta College if the student is not in attendance at the time of qualification for graduation.

IV. **COURSE REQUIREMENTS** -

A. **Major Field of Study**: Select Associate in Arts or Associate in Science degree program.

B. **General Education:** 21-39 units. Select either Associate, CSU, or IGETC pattern from the following pages.

V. **COMPETENCY GRADUATION REQUIREMENTS--A.A./A.S. DEGREE**

In order to receive an Associate Degree from Shasta College, the student must demonstrate competence in reading, in written expression, and in mathematics.

A. Competence in reading and in written expression is demonstrated by a grade of "C" or higher in one of the following courses:

ENGL 1A	ENGL 190	ESL 138
BUAD 66	ENGL 191 Writing in the Workplace, plus two	
BUAD 166	(2) units from ENGL 192, 193,194	

B. Competence in mathematics is demonstrated by one of the following criteria:

1. A grade of "C" or higher in a mathematics course listed from 1-199 OR one of the following courses:

BUAD 106 MATH 100 MATH 101

2. Performance at or above the level specified below on the following examinations:

Examination	Score	
College Board Advanced Placement Math Test (CALC or STAT)	3	
Scholastic Aptitude Test - Mathematics (SAT-M)	520	(Beginning 4/95)
American College Testing (ACT) – Math	23	
Elementary Algebra Diagnostic Test	26	
COMPASS **Algebra** Test	39	
Accuplacer	57	

SECOND DEGREE REQUIREMENTS - Check with Admissions and Records Office for specific criteria.

APPLYING FOR YOUR DEGREE - You must apply for your A.A./A.S. Degree in the Admissions & Records Office one month before the end of the semester in which you plan to complete it.

CATALOG RIGHTS - A currently enrolled student has the right to choose the graduation requirements in effect at either initial enrollment or graduation, provided he/she has not had an interruption of more than two successive semesters. Students planning to transfer to a university should check that institution's catalog for "rights" accorded community college transfers.

The Associate in Science degree The AS degree is primarily oriented to technical, science, and occupational programs. It is intended for the student who plans to enter the workforce after completion of the two-year degree or for transfer majors in math, engineering, or sciences.

Shasta College awards the Associate in Science degree for the occupational majors listed below. While these programs may include transferable courses, they are designed to provide the necessary skills that prepare students to enter the workforce. Students planning to transfer should complete one of the Associate in Arts degrees listed above or meet with a counselor to determine the additional courses necessary for transfer.

Administration of Justice
Agriculture
Agriculture-Equine Science
Agriculture-Forest Science and Technology
Agriculture-Horticulture
Agriculture-Natural Resources
Agriculture-Veterinary Technician
Automotive Technology
Business Administration
- Accounting Concentration
- General Business Concentration
- Management Concentration
- Real Estate Concentration

Computer Aided Drafting (CAD) Technology
Computer and Information Systems
- Business Information Systems Concentration
- Computer Networking Concentration (CCNA Option)
- Computer Networking Concentration (CCNP Option)

Construction Technology
Dental Hygiene
Diesel Technology
Early Childhood Education
Engineering Technology
Family Studies
Fire Technology
General Studies
Hospitality Management
- Culinary Arts Concentration
- Hotel/Restaurant Management Concentration

Legal Assistant
Nursing – Associate Degree Nursing
Office Administration
- Administrative Assistant
- Administrative Assistant – Legal
- Information Processing Specialist
- Medical Office Specialist
- Transcriptionist - Medical

Welding Technology

The Associate in Arts degree The AA degree is a liberal arts degree. It is designed for the student who wishes to complete lower division requirements in preparation for transfer to a four-year public or private university.

Shasta College offers several AA degrees that prepare students to transfer:

1. **AA – University Studies:** A total of 60 units are required including completion of a transfer GE pattern: IGETC, CSU GE, or 30 unit pattern. See page 38 for complete requirements.
2. **Transfer AA Majors: (Students complete the major and the 33-39 unit CSU or IGETC general education plan)**

Art	Agric. - Environmental Horticulture	Music
Communication Arts	Journalism	Theatre Arts

Note: Students also transfer in many other majors by completing the IGETC or CSU GE certificate and the major preparation courses listed at www.assist.org

COURSE NUMBERING SYSTEM FOR SHASTA COLLEGE

Shasta College has numbered courses to assist students in scheduling. Refer to the complete course description in the catalog for explanation of the course. Numbering is according to the following system:

0-99*	Baccalaureate level course. Courses certified by Shasta College as meeting transfer requirements to the California State University System. For the University of California system check with your counselor.
100-199	Courses, primarily vocational in nature, meeting Associate Degree graduation requirements. Generally not transferable to four-year institutions.
200-299	Basic skills courses designed to enable students to succeed in college level work, or pre-collegiate occupational preparation courses. These courses do not transfer or apply to an Associate Degree (Title 5, Section 55002).
300-399	Ungraded (adult education) courses designed to meet specific student needs. These courses carry no unit credit.

*Baccalaureate level courses are those commonly taught in a four-year college or university as well as at the community college level.

The U.C. system publishes a list annually that indicates which Shasta College courses are accepted for admission. This list is available in the Transfer Center, Shasta College Admissions Office, and www.assist.org. Not all courses numbered 1-99 are accepted by the University of California system for purposes of admission.

CALIFORNIA ARTICULATION NUMBER (CAN)

Shasta College, in cooperation with selected community colleges, California State Universities, and University of California campuses, is participating in a project entitled the California Articulation Numbering System (CAN). Courses bearing this CAN designation will be accepted in lieu of courses at four-year institutions that carry the same CAN number with a given academic discipline. Full transfer credit for Shasta College CAN courses to participating institutions is thus ensured.

CCCAGCANS NUMBERING SYSTEM

The California Community Colleges, the California State Universities (CSU, Chico; CSU, Fresno; Cal Poly, SLO and Cal Poly, Pomona; and the University of California, Davis, have developed a uniform numbering system for courses in Agriculture, Horticulture and Natural Resources. This numbering system is called CCCAGCANS and is assigned to courses that have a standardized statewide curriculum. For students who have completed courses that have a CCAGCANS number, this numbering system allows transfer between community colleges, and from the community college to a university, without delay or loss of units.

Certificates

Accounting Clerk/Bookkeeper
Agriculture-Equine Science
Agriculture-Equipment Operations and Maintenance
Agriculture-Horticulture
- Master Floral Design
- Irrigation
- Landscape and Turf Management
- Retail Nursery Sales

Agriculture-Natural Resources
Automotive Machine
Automotive Technology
Business Administration- Entrepreneurship
Computer Aided Drafting (CAD) Technology
Computer & Information Systems
- Computer Networking (CCNA)
- Computer Networking (CCNP)
- Systems – Web Design

Computer Maintenance
Construction Technology
CSU - General Education
Customer Service Academy
Diesel Technology
Dietary Service Supervisor
Early Childhood Education
ECE-Family Childcare
Engineering Technology
Firefighter I Cert Program
Firefighter II Cert Program
Fire Technology-Wildland Firefighter 1 Academy
Geographic Information Systems
Hospitality – Baking – Culinary Arts Emphasis
Hospitality – Bartender – Culinary Arts Emphasis
Hospitality – Dining Room Management – Culinary Arts Emphasis
Hospitality – Dining Room Staff – Culinary Arts Emphasis
Hospitality – Enology and Viticulture Practices
Hospitality – European and California Wines
Hospitality – Line Cook – Culinary Arts Emphasis
Hospitality - Winemaking and Marketing
Hospitality Management
- Casino Management Concentration
- Culinary Arts Concentration
- Hotel/Restaurant Management Concentration

Industrial Technology
IGETC – General Education
Journalism
Life Management
Music
Nonprofit Organization Management
Nurse Aide/Home Health Aide
Nursing-Vocational Nursing
Office Administration
- Clerical Assistant
- Info Processing Specialist
- Medical Billing Specialist
- Records Manager
- Transcriptionist – Medical

Real Estate
Retail Management
Theatre Arts
Transition Certificate for Students with Intellectual Disabilities
Virtual Assistant
Watershed Restoration
Water/Wastewater Treatment
Welding Technology

2008-2009
Associate Degree – General Education

General Education - 21 units (plus a major field of study = 60 units)

General education courses are designed to broaden the knowledge of students, increase their ability to reason clearly and critically, build speaking and writing and quantitative skills, and expose them to different modes of thinking about themselves and the community. These courses are designed to increase an understanding of the natural world, build knowledge of the social world, and foster an appreciation of arts and culture. Just as the main purpose of course work aimed at developing employment skills is to prepare students to work productively, then the main purpose of general education is to prepare them to be better informed, more skilled citizens--productive not only in the workplace, but also in the community and within the family. The goal is a more well-rounded, responsible individual: healthy in mind and body, tolerant of divergent points of view, able to think rationally and openly, and competent to adapt to a changing world.

In order to complete the General Education requirements, a student must complete twenty-one (21) units of study. Three units must be completed in each of the following areas: 1, Natural Science; 2, Social and Behavioral Sciences; 3, Humanities; 4-a, Language and Rationality, English Composition; 4-b,Oral Communication ; 4c, Analytical Thinking, and 5, Multicultural/Living Skills. A course cannot be counted in more than one area of study. A four (4) quarter unit course is deemed equivalent to a three (3) semester unit course.

1. ***NATURAL SCIENCE***--Those which examine the physical universe, its life forms and its natural phenomena. Three (3) units required

AGAS 19 Animal Sci.	BIOL 5 Human Biol	CHEM 16 Chem Prob Solv	ESCI 18 Global Climate	
AGEH 33 Env Hort	BIOL 10 Gen Biol	ESCI 1 Phys Geology	FSS 25 Nutrition	Or select 3 units from
AGNR 1 Intro to Nat Res	BIOL 11 Div of Life	ESCI 5 Intro Geology	GEOG 1A Phys Geog	these 1-2 unit courses:
AGNR 60 Envir Science	BIOL 12 Field Biology	ESCI 6 Ancient Life	MICR 1 Microbiology	ASTR 5,6
AGNR 64 Water Res.	BIOL 14 Heredity	ESCI 7 Int toGeol of CA	NHIS 15 Natural History	BOT 50, 52
AGNR 67 Energy & Envir	BIOL 15 Entomology	ESCI 8 Planetary Geol	PHSC 1 Phys Sci Surv	ESCI 16, 32, 33, 34, 35,
AGPS 20 Plant Sci	BIOL 60 Biol of Aging	ESCI 9 Earthquakes	PHYS 2AB Gen Physic	36, 37, 38, 42, 43, 44,
AGPS 24 Soils	BOT 1 Botany	ESCI 10 Envir Geology	PHYS 4A Physics-Mech	45, 46
ANAT 1 Anatomy	CHEM 1AB Gen Chem	ESCI 12 Gen Earth Sci	PHYS 101 Tech Physics	NHIS 63, 65
ANTH 1 Phys Anthro	CHEM 2AB Intro Chem	ESCI 14 Meteorology	PHY 1 Physiology	ZOOL 105, 163
ASTR 1 Astronomy	CHEM 6 Chem Enviro	ESCI 15 Oceanography	PHY 5 Human Sexuality	
BIOL 1 Prin of Biol	CHEM 10 Chem Lib Art	ESCI 17 Earth Sys Scl	ZOOL 1 Zoology	

2. ***SOCIAL AND BEHAVIORAL SCIENCES***--Those which focus on people as members of society. Three (3) units required.

ADJU 10 Intro to AOJ	ECON 1A/B Economics	HIST 2 World Civilization*	HUSV 132 Mental Disord	PSYC 17 Abnormal Psyc
AGAB 54 Ag Economics	ECON 2 Econ Issues	HIST 3 World Civilization*	JOUR 21 Mass Commun	PSYC 20 Cross Cult Psyc*
AGPS 25 Calif. Water	ECON 17 Econ History	HIST 17AB US History	POLS 1 Intro Poli Sci	PSYC 41 Cult Soc Child*
ANTH 2 Cultural Anth*	FSS 16 Marriage Family	HIST 25 African Am. Hist*	POLS 2 Amer Govt	PSYC 46 Hum Mem/Lrng.
ANTH 5 Human./Cult./Ecol	FSS 18 Adulthood/Aging	HIST 35 Hist Mex Amer*	POLS 12 CA St/Locl Govt	SOC 1 Intro Sociology
ANTH 14 Relig,Myth,Ritual*	FSS 60 Life Managemnt	HIST 36 History Far East*	POLS 20 Polit 3rd World*	SOC 2 Social Problems
ANTH 25 Cult. Hist Indian*	GEOG 1A Env Phy Geog	HIST 38 Hist World Relig*	POLS 25 Global Politics	SOC 15 Soc Mass Media
ARCH 3 Prin of Arch	GEOG 1B Cultural Geog*	HIST 40 Hist Gov of CA	PSYC 1A Gen Psyc	SOC 22 Soc of Aging
ARCH 4A Field Arch.	GEOG 7 Calif Geography*	HIST 55 Hist Amer Front	PSYC 14 Und Hum Beh	SOC 25 Soc Minorities*
ECE 1 Human Develop	GEOG 8 Wrld Reg Geog*	HIST 57 Russian History	PSYC 15 Soc Psychology	SOC 70 Social Welfare
ECE 2 Child Fam Comm	HIST 1AB Western Civil	HIST 177 Local Shasta	PSYC 16 Health Psyc	

3. ***HUMANITIES***--Courses in the humanities are those which study the cultural activities and artistic expressions of human beings. To satisfy the general education requirement in the humanities, a course shall be designed to help the student 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 creation and help the student develop aesthetic understanding and an ability to make value judgments. Such courses could include introductory or integrative courses in the arts, foreign languages, literature, philosophy, and religion. Three (3) units required.

ART 1 Intro to Art	ENGL 13A/B Surv Eng Lit	ENGL 31 Creative Writ	MUS 10 Music Apprec	SL 96 Sign Language IV
ART 2 Hist of Art	ENGL 14 Drama as Lit	ENGL 33 Fiction and Film	MUS 11 Hist Jazz & Rock	SPAN 1/2/3/4 Spanish*
ART 3 Hist of Art	ENGL 15 Lit Women	ENGL 36 Children's Lit	MUS 14 World Music*	SPAN 19 Span Conv/Cult
ART 4 World Art*	ENGL 16 Poetry	FREN 1/2/3/4 French*	PHIL 6 Intro to Philosophy	SPAN 20 Span Conver
ART 6 Hist/Modern Art	ENGL 17 Shakespeare	GERM 1/2/3/4 German*	PHIL 7 Ethics:Right/Wrong	THTR 1 Intro to Theatre
CMST 30 Oral Interpret	ENGL 18 Afric Amer Lit*	HUM 2 Explor Human	PHIL 8 Logic	THTR 5 20th Cent Theatre
ENGL 1B Lit & Comp	ENGL 19 Bible as Lit	HUM 4 Human thru Film	PHIL 10 Life/Death Moral	THTR 8 Theatre App I
ENGL 10AB World Lit*	ENGL 20 World Mythology	HUM 70 Explor Cont TV	RUSS1/2/3/4 Russian*	THTR 9 Theatre App II
ENGL 11A/B Surv/Am. Lit	ENGL 24 Multicult Persp	JAPN 1/2/3/4 Japanese*	SL 90 & 92 Sign Lang	
ENGL 12 Short Fiction	ENGL 25 Linguistics	JAPN 19+20 Japanese Conv	SL 94 Sign Language III	

4. ***LANGUAGE AND RATIONALITY***--Courses in language and rationality are those which develop for the student the principles and applications of language toward logical thought, clear and precise expression and critical evaluation of communication in whatever symbol system the student uses.

a. **English Composition**--Courses fulfilling the written composition requirement shall be designed to include both expository and argumentative writing. Three (3) units required.

ENGL 190 Reading & Writing II	BUAD 166 Business English	ENGL 191 Writing in the Workplace, plus
ENGL 1A College Composition	ESL 138 Composition II	two (2) units from ENGL 192, 193, 194
BUAD 66 Business Communication		

b. **Oral Communication**--Instruction approved for fulfillment of the oral communication requirement emphasizes the content of communication as well as the form. Emphasis is placed on the psychological, cultural and linguistic factors which affect human communication, including how communication operates in various situations. Course content includes an emphasis on the ability to speak and listen effectively, as well as verbal and non-verbal communication. Three (3) units required

CMST 10 Interper. Comm	CMST 30 Oral Interpretation	CMST 54 Small Group Comm.
CMST 20 Intercult Comm.*	CMST 40 Argument/Debate	CMST 60 Public Speaking

2008-09 Associate Degree – General Education (continued)

c. Analytical Thinking--Courses fulfilling the analytical thinking requirement include mathematics, logic, statistics, computer languages and programming and related disciplines. Students typically choose a mathematical course to meet their math competency requirement at the same time. Three (3) units required.

See Math Competency Requirement listed below

AS Level Math :	**Other Math Courses:**	**Other acceptable courses (if math competency has been satisfied):**
BUAD 106 Business Math	MATH 102 Inter Algebra	BUAD 45 Human Relations Job
MATH 100 Tech. Applic. of Mathematics	MATH 110 Essential Math	ENGL 1B Literature and Comp
MATH 101 Basic Algebra	MATH 2 Precalculus	ENGL 1C Crit Reasoning Writing
	MATH 3AB Calculus	CIS 1 Computer Literacy
	MATH 8 Finite Mathematics	CIS 2 Intro Computer Science
	MATH 9 Survey of Calculus	CIS 61 C++ Lang Programming
	MATH 10 Trigonometry	PHIL 7 Understanding Right/Wrong
	MATH 11 Patterns of Math	PHIL 8 Logic
	MATH 13 College Algebra	
	MATH 14 Statistics	
	MATH 17 Calculus App Soc/Life Sci	
	MATH 41AB Conc./Elem Math	

5. MULTICULTURAL/LIVING SKILLS--Those which encourage lifelong understanding. These courses prepare students to live and work in an increasingly multicultural environment or encourage development as integrated physiological, social and psychological beings. Three (3) units required, from either area.

MULTICULTURAL COURSES:

ANTH 2 Cultural Anth*	ENGL 10A World Lit*	GEOG 8 World Reg Geog*	POLS 20 Politics 3rd World Nations*
ANTH 25 Culture/NA Ind*	ENGL 18 African Am. Lit*	HIST 25 African Am. History*	PSYC 41 Cultural Social Childhood*
ART 4 World Art *	ENGL 24 Multicultural Lit*	HIST 36 History/Far East*	SOC 25 Sociology of Minorities*
CMST 20 Intercultural Comm.*	GEOG 1B Cultural Geog*	HIST 38 Hist/World Religion*	
	GEOG 7 California Geog*	HIST 50 History of Africa*	

LIVING SKILLS:

		OR select the two-unit course and a one-unit course below:	
		Two (2) Unit Lecture Course	**One (1) Unit Activity Courses**
AGNR 11 Environ. Ethics	FSS 60 Life Management	HLTH 5 Fitness Using Tech.	PE 11-17, 20-27, 30-39, 51
BUAD 10 Intro./ Business	STU 1 College Success		PE 60-75
BUAD 45 Hum. Rel/ Job	HLTH 1 Health and Wellness#		DAN 20-50
ECE 1 Human Develop.	HLTH 2 Nutrition and Fitness		
ECE 2 Child/Family/Comm	HLTH 3 Sub. Abuse Awareness		
FSS 16 Marriage/ Family	PE 4 Lifetime Fitness		
FSS 18 Adulthood/Aging	PHY 5 Human Sexuality		
FSS 25 Nutrition	PSYC 1A Gen Psychology		
FSS 26 Nutrit./Life Span	PSYC 14 Under.Hum. Beh		
FSS 46 Personal Fin.	SOC 22 Sociology of Aging		

#Veterans who have completed basic training and submit DD214 will receive credit for HLTH 1.

6. MULTICULTURAL REQUIREMENT – One course required. The course may be double-counted to also satisfy one of the areas numbered 1 – 5 above. Courses are marked with an asterisk (*).

Courses meeting this requirement contain perspectives on people from other cultures and backgrounds, as well as an examination of the contributions of non-Western cultures, or the intersection of culture with race, ethnicity, gender, class or other important social categories, such as religion.

ANTH 2	ENGL 18	HIST 3	MUS 14
ANTH 14	FREN 1, 2, 3, 4	HIST 25	PSYC 20
ANTH 25	GEOG 1B	HIST 35	PSYC 41
ART 4	GEOG 7	HIST 36	RUSS 1, 2, 3, 4
CMST 20	GEOG 8	HIST 38	SOC 25
ENGL 10A	GERM 1, 2, 3, 4	JAPN 1, 2, 3, 4	SPAN 1, 2, 3, 4
ENGL 10B	HIST 2	POLS 20	

DOUBLE COUNTING

Courses may be double counted for the emphasis and the GE pattern. For the General Studies major, the emphasis and GE pattern must total at least 36 units. For the University Studies major, the emphasis and GE must total at least 45 units.

NOTE:

1. Any student completing the General Education requirements for the CSU system or IGETC will also have met the General Education requirements for the Shasta College Associate Degree.
2. Completion of the General Education requirements for the Associate Degree will not meet the General Education pattern requirement for the CSU or University of California systems.
3. Total unit requirements for General Education compliance is twenty-one (21) units for an associate degree.

COMPETENCY GRADUATION REQUIREMENTS--A.A./A.S. DEGREE

Refer to Page 23 for complete English and Math competency requirements.

A.S. General Studies Major
2008–2009

The Associate of Science degree, General Studies, is for students desiring a two year degree to prepare to enter the workforce or continue in their current career. The choice of emphasis allows the student to explore an area of interest while providing sufficient depth in a field of knowledge to contribute to lifelong interest.

Complete the Shasta College GE pattern (pg. 26), one Emphasis from below, and AS degree-applicable electives (#1-199) to total 60 units.

(Pending Chancellor's Office approval)

Areas of Emphases

General Studies – AGRICULTURE TRADES - 18 units

The Agriculture emphasis allows students to explore all areas of agriculture, including animal science, agriculture business, horticulture, horse practices, sustainable or holistic agriculture, mechanical equipment, natural resources, veterinary practices, and viticulture.

Select 18 units from at least three of the following areas:

General Agriculture	AG	1, 6, 9, 58, 118
Ag. Animal Science	AGAS	10, 11, 15, 17, 19, 30, 117
Ag. Agriculture Business	AGAB	51, 53, 54
Ag. Environmental Horticulture	AGEH	3, 7, 22, 23, 26, 27, 28, 29, 31, 31.1, 31.2, 31.3, 33, 34, 35, 36, 37, 38, 39, 40, 41, 44, 45, 46, 60, 70, 71, 72, 75, 122, 125, 130, 133, 137, 150
Ag. Equine Science	AGEQ	12,13,14,21,109,110,111,112,113,114,115
Ag. Plant Science	AGPS	20, 25, 126, 24
Ag. Sustainable Agriculture	AGSA	
Ag. Mechanized Agriculture	AGMA	44
Ag. Natural Resources	AGNR	1, 6, 8, 10,11, 50, 51, 52, 53, 54, 55, 59, 60, 61, 64, 65, 66, 67, 69, 70, 83, 173, 174, 176
Ag. Veterinary Technician	AGVETT	1, 2, 3, 4, 5, 6, 7
Ag. Viticulture	AGVIT	80, 81

General Studies – Business - BASIC BUSINESS - 18 units

The Basic Business emphasis allows students to explore many areas of business, including accounting, business law, management, marketing, real estate, and specialized areas such as hospitality, and casino management.

Choose 3 units from the following:

Accounting	ACCT	2, 101, 194

Choose 9 units from the following:

Business Administration	BUAD	6, 8, 10, 12, 15, 40, 41, 42, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 66, 71, 72, 73, 80, 91, 92, 106, 120

Choose 6 units from the following:

Casino Management	CAS	10, 40
Computer Information Systems	CIS	1
Dietary Services Supervisor	DSS	10, 63
Hospitality	HOSP	10, 20, 35, 40, 45, 50, 60, 65
Marketing	MKTG	70, 72, 74, 76, 176
Real Estate	REAL	30, 31, 32, 34, 136
Economics	ECON	1A, 1B, 2

General Studies – Business - OFFICE AND COMPUTER TECHNOLOGIES - 18 units

The office and computer technologies emphasis allows students to explore many areas of office management, and computer and information management, including clerical skills, legal assisting, medical coding and billing, medical transcription, Computer Networking, A+, and Web design.

Select 18 units from the following courses:

Accounting	ACCT	101, 102, 103, 104,
Business Administration	BUAD	66, 71, 72, 73, 106, 166
Computer Information Systems	CIS	1, 2, 3, 4, 5, 6, 10, 11, 12, 20, 21, 22, 23, 31, 32, 33, 34, 35, 36, 37, 38, 39, 50-56, 57, 60, 61, 62, 63, 64, 70, 71, 72, 73, 74, 75, 79, 80, 81, 83, 86, 90, 92
Legal Assistant	LEGL	39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 55, 56, 58
Office Administration	OAS	30, 31, 51, 52, 52, 58, 63, 64, 70, 72, 80, 84, 91, 92, 93, 94, 96, 112, 113, 114, 150, 152, 154, 157, 158, 159, 160, 162, 166, 171

General Studies- Fire – EMERGENCY MEDICAL RESPONSE – 18 Units

This degree is directed at students who will be working as Emergency Medical Technicians. Additionally, this degree could be used as a general preparation program for those students who will be attending a Paramedic certification program.

Complete the following

First Aid/CPR/EMT	FAID	175

and

Select 13 units from the list below:

Fire Technology	FIRS	120
First Aid/CPT/EMT	FAID	
Family Studies and Services	FSS	25
Biology	BIOL	
Microbiology	MICR	
Registered Nursing	REGN	
Vocational Nursing	VOCN	

General Studies- Fire – FIRE INVESTIGATION – 18 Units

While available to anyone, this degree is designed for students who intend on working as fire investigators. Additionally, this degree is applicable for students who are, or will be working in Fire Prevention, Plans Checking, or similar functions within a municipal fire department. Once a student has completed this degree, it is hoped that they will continue their education and pursue a transfer level AA degree with a final target being undergraduate and graduate degrees in Chemistry, Physics, Engineering, Systems Analysis, or similar disciplines.

Select 18 units from the list below:

Fire Technology	FIRS	71, 86, 189, 191, 192
Fire Tech/Wildland Fire Logistics	FTWL	101
Fire Tech/Wildland Prevention	FTWP	114
Administration of Justice	ADJU	16, 20

General Studies- Fire – FIRE SERVICE COMMAND, COMPANY OFFICER – 18 Units

While available to anyone, this degree is designed for students who have been working as Firefighter/Engineers (paid or volunteer) and intend on becoming Engine Captains. Additionally, this degree supports wildland firefighters who are, or will be working at the Crew/Engine/Dozer/Squad Boss levels, or similar supervisory positions. Once a student has completed this degree, it is hoped that they will continue their education and pursue a transfer level AA degree with a final target being undergraduate and graduate degrees in team development, group dynamics/psychology, fire administration or similar disciplines.

Select 18 units from the list below:

Fire Technology	FIRS	85, 87, 100, 108, 123, 124, 135, 136, 179
Fire Tech/Wildland Fire Ops	FTWO	114, 116, 121,135
Fire Tech/Wildland Fire Logistics	FTWL	103

General Studies- Fire – FIRE SERVICE LEADERSHIP – 18 Units

While available to anyone, this degree is designed for students who have been working as Firefighter/Engineers (paid or volunteer) and intend on promoting to supervisory positions. Additionally, this degree supports wildland firefighters who are or will be working at the Crew/Engine/Dozer Boss, Squad Boss, or similar supervisory positions. Once a student has completed this degree, it is hoped that they will continue their education and pursue a transfer level AA degree with a final target being undergraduate and graduate degrees in management, leadership, organizational dynamics, industrial psychology, cognitive engineering or similar disciplines.

Select 18 units from the list below:

Fire Technology	FIRS	113, 180
Fire Tech/Wildland Fire Ops	FTWO	115, 134
Communication Studies	CMST	maximum of 3 units
Legal	LEGL	55
Philosophy	PHIL	maximum of 3 units
Psychology	PSYC	14
Administration of Justice	ADJU	42

NOTE: Student may use a maximum of 3 units from the BUAD courses that are listed below.

Business Administration	BUAD	81, 82, 83, 84, 85, 86, 87, 88, 89, 90

General Studies- Fire – RESCUE TECHNOLOGIES – 18 Units

While available to anyone, this degree is designed for students who have been working as Firefighters (paid or volunteer) and intend on transferring or upgrading to a Technical Rescue or Urban Search and Rescue Team. Once a student has completed this degree, it is hoped that they will continue their education and pursue a transfer level AA degree with the final target being undergraduate and graduate degrees in Materials Science, Engineering, Health and Safety, Physics, or similar disciplines.

Complete the following:

FIRS 148- Rescue Systems 1

and

Select 16.5 units from the list below:

Fire Technology	FIRS	79, 85, 145, 146, 147, 149
First Aid/CPR/EMT	FAID	132, 175

Rescue Systems 2 (Taken at another college)
Confined Space Rescue Operations (Taken at another college)
Trench Rescue (Taken at another college)
Low Angle Rescue Operational (Taken at another college)

General Studies- Fire – WILDLAND FIRE BEHAVIOR – 18 Units

While available to anyone, this degree is designed for students who have been working as wildland firefighters and intend on working within the Plans Section of the Incident Command System (specifically the Situation Unit and Fire Behavior positions). Once a student has completed this degree, it is hoped that they will continue their education and pursue a transfer level AA degree with a final target being undergraduate and graduate degrees in Meteorology, Physics, or similar disciplines.

Select 18 units from the list below:

Fire Tech/Wildland Fire Logistics	FTWL	101, 103
Fire Tech/Wildland Fire Ops	FTWO	113, 132, 144, 152, 157, 162
Fire Tech/Wildland Prevention	FTWP	110, 123, 126
Earth Science	ESCI	14
Chemistry	CHEM	maximum of 3 units
Physics	PHY	maximum of 3 units
Mathematics	MATH	maximum of 3 units at or above the MATH 102 level

General Studies- Fire – WILDLAND FIRE RECONNAISSANCE – 18 Units

While available to anyone, this degree is designed for students who have been working as wildland firefighters and intend on working within the Plans Section of the Incident Command System (specifically the Situation Unit and Field Observer positions). Additionally, this degree is applicable to students who are working within the Incident Command System as Division Supervisors, Strike Team Leaders, Line Scouts, Lookouts or Squad Bosses. Once a student has completed this degree, it is hoped that they will continue their education and pursue a transfer level AA degree with a final target being undergraduate and graduate degrees in Geographical Information Systems, Geography, Cartography, or similar disciplines.

Select 18 units from the list below:

Geography	GEOG	11
Fire Technology	FIRS	156
Fire Tech/Wildland Fire Logistics	FTWL	110
Fire Tech/Wildland Fire Ops	FTWO	112, 128, 132
Geographic Information Systems	GIS	1, 22
Botany	BOT	1
Earth Science	ESCI	14

General Studies – HEALTH – 18 units
The Health emphasis allows students to explore health-related topics such as nutrition, physical fitness, substance abuse, wellness, and medical-related areas in medical terminology, first aid, EMT training. Students who have completed LVN and CNA certificate programs can use this emphasis to complete an associate degree.

Select 18 units from the following courses:

Dance	DAN	10, 15, 20, 21, 30, 31, 40, 41, 50
First Aid/CPR/EMT	FAID	130, 132, 133, 134, 175, 178
Nutrition	FSS	25
Health	HLTH	1, 2, 3, 5, 8, 9, 10
Health Occupations	HEOC	100, 101, 110, 111, 154, 159, 160, 161, 162, 166, 167, 171, 172, 173, 174, 176, 177, 180, 181, 186, 188, 192, 194, 196, 197
Physical Education	PE	4, 6, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21, 22, 23, 26, 27, 30, 31, 32, 33, 35, 36, 37, 39, 39, 51, 60, 62, 69, 70, 71, 72, 73, 74, 75
Physical Ed-Athletics	PEAT	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31
Vocational Nursing	VOCN	160, 161, 162

General Studies – FOOD AND BEVERAGE AND LODGING MANAGEMENT - 18 units
The Food and Beverage and Lodging management emphasis allows students to explore many areas of the hospitality industry, including culinary arts, restaurant management, casino management, and beverage management.

Select 18 units from the following courses:

Accounting	ACCT	2, 4, 101 ,102, 103, 104, 194
Business Administration	BUAD	6, 8, 10, 40, 42, 66, 71, 72, 73, 80, 81-90, 91, 106, 120, 166
Casino Management	CAS	10, 20, 30, 40, 50
Computer Information Systems	CIS	1, 10, 11, 12, 83, 86
Culinary Arts	CULA	45, 46, 48, 49, 50, 55, 59, 60, 65, 66, 71, 73, 74, 75, 76, 78, 80, 82, 84, 86, 88, 159, 161, 167, 170, 171, 172
Dietary Service Supervisor	DSS	10, 63
Hospitality	HOSP	10, 20, 35, 40, 45, 50, 60, 65

General Studies – HUMAN DEVELOPMENT – 18 units
The Human Development emphasis permits students to explore the areas of early childhood education, teacher preparation, and family studies in order to develop foundational concepts and skills in working with people of all ages. Students will recognize that each human life, characterized by multiple influences and interrelated domains, is worthy of study, both individually and within a variety of contexts.

Select 18 units from the following courses:

Early Childhood Education	ECE	1, 2, 3, 4, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 20, 22, 24, 26, 27, 30, 40, 50, 51, 52
Education	EDUC	1, 2, 7, 8, 10
Education - Teaching	EDTE	51, 52, 61, 62
Family Studies & Services	FSS	10, 12, 16, 18, 25, 26, 27, 46, 60, 95

General Studies – HUMANITIES – 18 units
The Humanities emphasis permits students to explore the arts, ideas, values, and cultural expressions of the world's peoples as a foundation for lifelong learning or as an introduction to fine arts, literature, music, theater, communication, journalism, and world languages.

Select 18 units from the following courses:

Art	ART	1, 2, 3, 4, 6,12, 13, 15, 16, 17, 21A, 21B, 23, 26, 27, 29, 30, 31, 32, 35, 36, 45, 46, 50, 55, 56, 57, 60A, 61, 62, 63, 80A, 80B, 110, 121, 122, 123, 124, 125, 126
Communication Studies	CMST	10, 20, 30, 40, 54, 60
Dance	DAN	(Up to 3 units of Dance courses may apply)
English	ENGL	1A, 1B, 1C, 10AB, 11AB, 12, 13AB, 14, 15, 16, 17, 18, 19, 20, 24, 25, 31, 33, 36, 91
French	FREN	1, 2, 3, 4
German	GERM	1, 2, 3, 4
Humanities	HUM	2, 4, 70
Japanese	JAPN	1, 2, 3, 4, 19, 20
Journalism	JOUR	21, 24, 27, 29
Music	MUS	1, 2, 3, 4, 5, 7, 10, 11, 12, 14, 20, 21, 22, 23, 24, 25, 28, 29, 30, 31, 33, 35, 39, 40, 41, 42, 43, 44, 45, 46, 47, 120, 121
Philosophy	PHIL	6, 7, 8, 10
Russian	RUSS	1, 2, 3, 4
Sign Language	SL	90, 91, 92, 93, 94, 95, 96
Spanish	SPAN	1, 2, 3, 4, 19, 20, 151
Theatre Arts	THTR	1, 5, 8, 9, 12, 13, 20, 21, 23, 24, 25, 26, 29, 30, 31, 33, 34, 37, 41, 42, 50, 51, 52, 60, 61, 70, 74, 81, 153

General Studies -- INDUSTRIAL TECHNOLOGIES – 18 units

The Industrial Technology emphasis permits the student to explore the trades and acquire skills in a variety of technical fields: automotive and diesel technology, construction, computerized drafting, computer electronics, heavy equipment operation, aviation ground school, machine tooling, and welding.

Select 18 units from the following courses:

Automotive Technology	AUTO	1, 10, 20, 21, 130, 131, 147, 150, 152, 161, 162, 163, 164, 170, 172, 180, 181
Aviation	AVIA	101, 105
Construction Technology	CONS	45, 46, 47, 48, 52, 53, 55,71, 72, 73, 74, 84, 148, 149, 150, 151, 152, 154, 155, 168, 178
Diesel Technology	DIES	30, 48, 49, 158, 160, 161, 162, 164, 165, 166, 170
Electronic Technology	ELEC	30, 31, 32, 37, 39, 138
Engineering	ENGR	1A, 1B, 2, 20, 21, 22, 24, 25, 26, 27, 29, 30, 31, 32, 33, 37, 38, 64, 118, 119, 120
Industrial Technology	INDE	1, 101, 161, 162, 163
Welding Technology	WELD	56, 70, 130, 170, 171, 172, 173, 174, 175 176, 178, 182, 184, 186, 188

General Studies – LANGUAGE ARTS – 18 units

The emphasis in language arts allows students to explore the areas of both written and spoken English language, literature, and world languages.

Select 18 units from at least two areas:

Communication Studies	CMST	10, 20, 30, 40, 54, 60
English	ENGL	1B, 1C, 10AB, 11AB, 12, 13AB, 14, 15, 16, 17, 18, 19, 20, 24, 25, 31, 33, 36, 91
Foreign Languages	FREN	1, 2, 3, 4
	GERM	1, 2, 3, 4
	JAPN	1, 2, 3, 4, 19, 20
	RUSS	1, 2, 3, 4
	SPAN	1, 2, 3, 4, 19, 20,
	SL	90, 91, 92, 93, 94, 95, 96
Journalism	JOUR	21, 27, 29

General Studies - NATURAL SCIENCES – 18 units

This emphasis allows the student to explore the broad areas of life and physical sciences as a foundation for lifelong learning.

Select 18 units from at least four of the following areas:

Agriculture	AGNR	60, 67
	AGAS	19
	AGPS	20
	AGEH	33
Anatomy	ANAT	1
Astronomy	ASTR	1, 5, 6
Biological Sciences	BIOL	1, 5, 6, 10, 11, 12, 14, 15, 30, 60
Botany	BOT	1, 50, 52
Chemistry	CHEM	1A, 1B, 2A, 2B, 6, 10, 11, 16, 26, 70, 70A, 71, 71A,
Earth Science	ESCI	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18, 23, 26, 27, 32, 33, 34, 35, 36, 37, 38, 42, 43, 44, 45, 46
Geography	GEOG	1A
Geographic Information Systems	GIS	1, 10, 20, 21, 22, 23, 24, 25,
Microbiology	MICR	1
Natural History	NHIS	15 ,65, 105
Nutrition	FSS	25
Physical Science	PHSC	1
Physiology	PHY	1, 1L, 5
Physics	PHYS	2A, 2B, 4A, 4B, 4C, 101
Zoology	ZOOL	1, 105, 163

General Studies - PUBLIC SAFETY AND SERVICES – 18 units

This emphasis permits the student to explore courses in the field of public safety and for current law enforcement personnel to earn an associate degree for advancement in the field.

Select 18 units from the following courses:

Administration of Justice	ADJU	10, 11, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 30, 40, 41, 42, 100, 102, 103, 106, 131, 132

General Studies - SOCIAL SCIENCES - 18 units

This emphasis allows students to explore the social and behavioral sciences as a foundation for lifelong learning, or as introduction to the related fields of anthropology, psychology, sociology, economics, geography, history, and political science.

Select 18 units from the following courses:

Anthropology	ANTH	1, 2, 5, 14, 25
Archaeology	ARCH	3, 4, 5
Early Childhood Education	ECE	1, 2
Economics	ECON	1A, 1B, 2, 17
Family Studies & Services	FSS	16, 18
Geography	GEOG	1A, 1B, 2A, 2B, 7, 8, 10, 11
History	HIST	1A, 1B, 2, 3, 17A, 17B, 25, 35, 36, 38, 40, 55, 57
Political Science	POLS	1, 2, 12, 20, 25
Psychology	PSYC	1A, 14, 15, 16, 17, 20, 41, 46
Sociology	SOC	1, 2, 15, 22, 25, 70

Shasta College 2008-2009
California State Universities - General Education

Shasta College students will meet the General Education requirements for all campuses of the California State University system by completing the following General Education Program. Shasta College may certify a maximum of 39 semester units from Categories A - E. Note: No more than 30 semester units may be certified from Categories B - D. *Courses listed more than once may be used to fulfill the requirements of one category only.*
An additional 9 units of upper division work must be taken at a CSU campus to complete the full 48-unit General Education requirement.

CATEGORY A: Students shall select a minimum of nine (9) units in communications in the English language. Students must select one course from each area.

A1: Oral Communication

CMST 10: Interpersonal Communication
CMST 54: Small Group Communication
CMST 60: Public Speaking

A2: Written Communication

ENGL 1A: College Composition

A3: Critical Thinking

ENGL 1B: Literature & Composition
ENGL 1C: Crit. Reasoning/Reading/Writing
PHIL 8: Logic
CMST 40: Argumentation and Debate

CATEGORY B: Students shall select a minimum of nine (9) units in the physical universe and its life forms and in mathematical concepts and quantitative reasoning. Students shall select at least three units from each area. One of the courses must have a laboratory. Additional courses may be selected from any area. Courses underlined are designated as laboratory courses.

B1/B3: Physical Sciences

ASTR 1: Astronomy
AGNR 67: Energy & the Environment
AGPS 24: Soils
CHEM 1A: General Chemistry
CHEM 1B: General Chemistry
CHEM 2A: Introduction to Chemistry
CHEM 2B: Intro to Organic & Bio Chemistry
CHEM 6: Intro. Chemistry Applied to Envir.
CHEM 10: Chemistry for Liberal Arts
CHEM 11: Chemistry Lab for Liberal Arts
CHEM 16: Chemical Problem Solving
ESCI 3: Mineralogy & Crystal Optics
ESCI 4: Rock Origins & Relationships
ESCI 1: Physical Geology
ESCI 2: Geology, Historical
ESCI 5: Introduction to Geology
ESCI 6: Ancient Life
ESCI 7: Intro to Geology of California
ESCI 8: Planetary Geology
ESCI 9: Earthquakes, Volcanoes
ESCI 10: Environmental Geology
ESCI 12: General Earth Science
ESCI 14: Meteorology
ESCI 15: Oceanography
ESCI 17: Earth System Science
ESCI 18: Global Climate: Past, Present, Future
GEOG 1A: Physical Geog.
PHSC 1: Physical Science Survey
PHYS 2A: Gen. College Physics
PHYS 2B: Gen. College Physics
PHYS 4A: Physics - Mechanics

B2/B3: Life Sciences

AGAS 19: Principles of Animal Science
AGEH 33: Environ. Horticulture
AGNR 60: Environmental Science
AGNR 61: Environmental Science Lab
AGPS 20: Plant Science
ANAT 1: Human Anatomy
ANTH 1: Physical Anthropology
BIOL 1: Principles of Biology
BIOL 5: Human Biology
BIOL 6: Human Biology
BIOL 10: General Biology
BIOL 11: Diversity of Life
BIOL 12: Field Biology
BIOL 14: Heredity
BIOL 15: Entomology
BOT 1: General Botany
ESCI 6: Ancient Life
MICR 1: Microbiology
NHIS 15: Natural History
PHY 1: Physiology
ZOOL 1: General Zoology

B4: Mathematical Concepts and Quantitative Reasoning

MATH 2: Pre-Calculus Mathematics
MATH 3A, 3B, 4A, 4B: Calculus
MATH 8: Finite Mathematics
MATH 9: Survey of Calculus
MATH 10: Plane Trigonometry
MATH 11: Patterns of Mathematical Thought
MATH 13: College Algebra
MATH 14: Introduction to Statistics
MATH 41B: Concepts of Elementary Math
MATH 17: Calculus App. Soc & Life Sciences

CATEGORY C: Students shall select a minimum of nine (9) units among the arts, literature, philosophy, and foreign languages, with at least one course in the arts and one in the humanities.

C1: Arts

ART 1: Introduction to Art
ART 2,3: History of Western Art
**ART 4: World Art
ART 6: History of Modern Art
CMST 30: Oral Interpretation
ENGL 14: Drama as Lit
HUM 2: Exploring the Humanities
HUM 4: Humanities Through Film
MUS 10: Music Appreciation
MUS 11: History of Jazz and Rock
MUS 14: World Music
THTR 1: Introduction to Theatre
THTR 5: 20th Century Theatre
THTR 8: Theatre Appreciation I
THTR 9: Theatre Appreciation II

C2: Humanities

ENGL 1B: Literature & Composition
**ENGL 10A: World Literature to 1500
**ENGL 10B: World Literature after 1500
ENGL 11A, 11B: Survey of American Lit.
ENGL 12: Intro to Short Fiction
ENGL 13A, 13B: Survey of English Lit.
ENGL 14: Drama as Lit
ENGL 15: Intro. to Lit. By/About Women
ENGL 16: Poetry
ENGL 17: Intro to Shakespeare
*ENGL 18: African American Lit
ENGL 19: Survey of Bible as Literature
ENGL 20: World Mythology
*ENGL 24: Multicultural American Lit.
ENGL 25: Linguistics
ENGL 31: Creative Writing
ENGL 33: Fiction and Film
ENGL 36: Children's Lit
FREN 1, 2: Elementary French
FREN 3, 4: Intermediate French
GERM 1, 2: Elementary German
GERM 3, 4: Intermediate German
HUM 2: Exploring the Humanities
HUM 4: Humanities Through Film
HUM 70: Exploring Contemporary TV
JAPN 1, 2: Elementary Japanese
JAPN 3, 4: Intermediate Japanese
JAPN 19, 20: Japanese Conversation 1,2
PHIL 6: Introduction to Philosophy
PHIL 7: Ethics:Understand Right & Wrong
PHIL 8: Logic
PHIL 10: Life/Death Moral Issues
RUSS 1, 2: Elementary Russian
RUSS 3,4: Intermediate Russian
SPAN 1, 2: Elementary Spanish
SPAN 3, 4: Intermediate Spanish
SPAN 19: Spanish Conv. & Culture
SPAN 20: Spanish Conversation/Phonology
SL 90: American Sign Language I
SL 92: American Sign Language II
SL 94: American Sign Language III
SL 96: American Sign Language IV

Shasta College 2008-09 California State Universities – General Education (continued)

CATEGORY D: Students shall select a minimum of nine (9) units in social, political and economic institutions and behavior, and their historical background, with courses taken in at least two disciplines.

D1: Anthropology and Archaeology

**ANTH 2: Cultural Anthropology	ANTH 5: Humanity, Culture & Ecology	*ANTH 25: Culture & History/No. Am. Indian
ARCH 3: Principles of Archaeology	ANTH 14: Religion, Myth, and Ritual	

D2: Economics

AGAB 54: Agricultural Economics	ECON 1A, 1B: Principles of Economics	ECON 2: Economic Issues & Policies

D3: Ethnic Studies

*ANTH 25: Culture & Hist/North Am. Indian	*HIST 35: History of Mexican Americans	*SOC 25: Sociology of Minorities
*GEOG 7: California Geography	*PSYC 20: Cross-cultural Psychology	
*HIST 25: African American History		

D4: Gender Studies

D5: Geography

GEOG 1A: Physical Geography	**GEOG 8: World Regional Geography	*GEOG 7: California Geography
**GEOG 1B: Cultural Geography		

D6: History

HIST 1A,1B: History of Western Civ.	*HIST 25: African American History	HIST 40: History & Govern. California
HIST 2: World Civ to 1500 C.E.	*HIST 35: History of Mexican Americans	HIST 55: History of American Frontier
HIST 3: World Civ 1500 to Present	**HIST 36: History of the Far East	HIST 57: Russian History
HIST 17A,17B: U.S. History & Government	**HIST 38: History of World Religion	

D7: Interdisciplinary Social or Behavorial Science

AGNR 11: Environmental Ethics	*CMST 20: Intercultural Communication	ECON 17: Economic History of the US
AGPS 25: California Water	ECE 1: Human Development	JOUR 21: Intro. to Mass Communications
		*PSYC 41: Cultural/Soc Context of Childhood

D8: Political Science, Government, and Legal Institutions

ADJU 10: Intro to AOJ	POLS 2: Intro. to Amer. Government	**POLS 20: Politics of 3rd World Nations
POLS 1: Intro. to Political Science	POLS 12: CA State and Local Government	POLS 25: Global Politics

D9: Psychology

PSYC 1A: General Psychology	PSYC 16: Health Psychology	PSYC 46: Human Memory and Learning
PSYC 14: Understanding Human Behavior	PSYC 17: Abnormal Psychology	
PSYC 15: Social Psychology	*PSYC 20: Cross-Cultural Psychology	

D10: Sociology and Criminology

SOC 1: Introduction to Sociology	SOC 15: Sociology of Mass Media	*SOC 25: Sociology of Minorities
SOC 2: Social Problems	SOC 22: Sociology of Aging	SOC 70: Social Welfare

AMERICAN HISTORY AND GOVERNMENT REQUIREMENTS FOR GRADUATION FROM A CSU CAMPUS

Completion of a course in American History and a course in American Government is a requirement to graduate from any of the 23 CSU universities. At Shasta College, HIST 17A or 17B or ECON 17 and POLS 2 will satisfy the requirement.

CATEGORY E: Students shall select a minimum of three (3) units in lifelong understanding and development of themselves as integrated physiological, social and psychological entities.

E1:

BIOL 60: Biology of Aging	FSS 26: Nutrition Through the Life Span	PHY 5: Human Sexuality
ECE 1: Human Development	FSS 60: Life Management	PSYC 1A: General Psychology
ECE 2: Child, Family, Community	HLTH 1: Health and Wellness	PSYC 14: Understanding Human Behavior
FSS 16: Marriage and Family	HLTH 2: Nutrition and Fitness	PSYC 16: Health Psychology
FSS 18: Adulthood and Aging	HLTH 3: Substance Abuse Awareness	SOC 22: Sociology of Aging
FSS 25: Nutrition		STU 1: College Success

* *

CHICO STATE requires two courses to satisfy an Ethnic, Non-Western requirement. Both courses may be part of the 39-unit General Education requirement.

a. Courses with one asterisk (*) meet the Ethnic requirement "to foster and expand general understanding of racial and cultural groups in the United States." They are ANTH 25, CMST 20, ENGL 18, ENGL 24, HIST 25, HIST 35, SOC 25, and GEOG 7, PSYC 20, PSYC 41.

b. Courses with two asterisks (**) meet the Non-Western requirement "to foster and expand general understanding of non-western societies and cultures." They are ANTH 2, HIST 36, HIST 38, ENGL 10A, 10B, ART 4, GEOG 1B, GEOG 8, MUS 14 and POLS 20.

* *

Courses taken for CSU General Education are applied to categories based on the General Education list for the year they are completed.

This is the approved list for courses taken Fall 2008 through Summer 2009. See www.assist.org for new course additions.

3/25/08

2008-2009 IGETC
INTERSEGMENTAL GENERAL EDUCATION TRANSFER CURRICULUM

Students who are planning to transfer to the University of California system or who are undecided about whether to transfer to a UC or CSU may satisfy general education requirements with IGETC. The IGETC will permit a student to transfer from a community college to a campus in either the UC or CSU system without the need to take additional lower division general education courses to satisfy campus general education requirements. Transfer students to UC have the option of following IGETC or completing the general education requirement at the campus they plan to attend. Students pursuing majors that require extensive lower division preparation may not find the IGETC option to be advantageous. Check with a counselor before choosing your general education pattern.

IGETC courses must be completed with a "C" grade or better (P is acceptable).

AREA 1 - ENGLISH COMMUNICATION

Group A: English Composition (one course)
ENGL 1A: College Composition

Group B: Critical Thinking/English Composition (one course)
ENGL 1B: Literature and Composition
ENGL 1C: Critical Reasoning, Reading and Writing

FOR CSU ONLY:
Group C: Oral Communication (one course)
CMST 10: Interpersonal Communication
CMST 54: Small Group Communication
CMST 60: Public Speaking

AREA 2 - MATHEMATICAL CONCEPTS AND QUANTITATIVE REASONING (one course):

MATH 2: Pre-Calculus
MATH 3A: Calculus+
MATH 3B: Calculus
MATH 4A/4B: Calculus 4A/4B
MATH 8: Finite Math
MATH 9: Survey of Calculus+
MATH 13: College Algebra
MATH 14: Intro to Statistics
MATH 17: Calc. App, Soc. Life Sciences

AREA 3 - ARTS AND HUMANITIES (three courses; at least one course from the Arts and one from the Humanities):

ARTS:
ART 1: Introduction to Art
ART 2: History of Western Art
ART 3: History of Western Art
ART 4: World Art
ART 6: History of Modern Art
MUS 10: Music Appreciation
MUS 11: History of Jazz and Rock
THTR 1: Introduction to Theatre+
THTR 5: 20th Century Theatre
THTR 8,9: Theatre Appreciation I,II

HUMANITIES:
ENGL 10A/B: World Literature
ENGL 11A/B: Survey of American Lit.
ENGL 12: Intro to Short Fiction
ENGL 13A/B: Survey of English Lit.
ENGL 14: Survey of Drama as Lit
ENGL 15: Lit. By and About Women
ENGL 16: Poetry
ENGL 17: Intro to Shakespeare
ENGL 18: African American Literature
ENGL 19: Survey of the Bible as Literature
ENGL 20: World Mythology
ENGL 24: Multicultural Persp in Amer. Lit,
ENGL 25: Linguistics
ENGL 33: Fiction and Film
ENGL 36: Children's Lit
FREN 2: Elementary French
FREN 3/4: Intermediate French
GERM 2: Elementary German
GERM 3/4: Intermediate German
HIST 25: African American History
JAPN 2: Elementary Japanese
JAPN 3/4: Intermediate Japanese
JAPN 19 + 20: Japanese Conversation
SPAN 2: Elementary Spanish
SPAN 3/4: Intermediate Spanish
HUM 2: Exploring Humanities
HUM 4: Humanities Through the Film
HUM 70: Exploring Contemporary TV
PHIL 6: Intro. to Philosophy
PHIL 7: Ethics: Understand Right/Wrong
PHIL 10: Life and Death Moral Issues
RUSS 2: Elementary Russian
RUSS 3: Intermediate Russian
RUSS 4: Intermediate Russian
SL 92: American Sign Language II
SL 94: American Sign Language III
SL 96: American Sign Language IV

AREA 4 - SOCIAL AND BEHAVIORAL SCIENCES (three courses from at least two disciplines):

ANTH 2: Cultural Anthropology
ANTH 5: Humanity, Culture and Ecology
ANTH 14: Religion, Myth, and Ritual
ANTH 25: Cult/Hist of N. Amer. Indian+
ARCH 3: Principles of Archaeology

ECE 1: Human Development

ECON 1A: Prin. of Economics (Micro)
ECON 1B: Prin. of Economics (Macro)
ECON 2: Economic Issues and Policies
ECON 17: Economic History of the U.S.

GEOG 1A: Physical Geog
GEOG 1B: Cultural Geography
GEOG 7: California Geography
GEOG 8: World Geography

HIST 1A: History of Western Civilization
HIST 1B: History of Western Civilization
HIST 2: World Civilization to 1500 C.E.
HIST 3: World Civilization 1500 to Present
HIST 17A: U.S. History and Government
HIST 17B: U.S. History and Government
HIST 25: African American History
HIST 35: History of Mexican Americans
HIST 36: History of the Far East
HIST 38: History of World Religions
HIST 40: History & Government of CA
HIST 55: History of the American Frontier
HIST 57: Russian History of 20th Century

POLS 1: Intro. to Political Science
POLS 2: Intro. to American Government
POLS 20: Politics of 3rd World Nations
POLS 25: Global Politics

PSYC 1A: General Psychology
PSYC 14: Understand. Human Behav.
PSYC 15: Social Psychology
PSYC 17: Abnormal Psychology
PSYC 20: Cross-cultural Psychology
PSYC 41: Cultural/Soc Context-Childhood
PSYC 46: Human Memory & Learning

SOC 1: Introduction to Sociology
SOC 2: Social Problems
SOC 15: Sociology of Mass Media
SOC 22: Sociology of Aging
SOC 25: Sociology of Minorities

+Transfer credit may be limited by either UC or CSU or both (usually due to duplication of content). Students should consult with a counselor for additional information.

2008-09 IGETC (continued)

AREA 5 - PHYSICAL AND BIOLOGICAL SCIENCES (two courses, one Physical Science and one Biological Science for a minimum of 7 units; at least one course must include a laboratory (underlined)

PHYSICAL SCIENCES:

ASTR 1: Astronomy
CHEM 1A: General Chemistry
CHEM 1B: General Chemistry
CHEM 2A: Intro to Chemistry+
CHEM 2B: Intro to Org & Bio Chemistry+
CHEM 6: Intro to Chem Applied Envr
CHEM 10: Chemistry for Liberal Arts+
CHEM 11: Chemistry Lab/Liberal Arts+
CHEM 16: Chemical Problem Solving
CHEM 70, 71: Organic Chemistry
ESCI 1: Physical Geology
ESCI 2: Historical Geology
ESCI 3: Mineralogy & Crystal Optics
ESCI 4: Rock Origins & Relationships
ESCI 5: Introduction to Geology+
ESCI 6: Ancient Life
ESCI 7: Intro to Geology of California
ESCI 8: Planetary Geology
ESCI 9: Earthquakes, Volcanoes
ESCI 10: Environmental Geology
ESCI 12: Earth Science Survey+
ESCI 14: Meteorology
ESCI 15: Oceanography
ESCI 17: Earth System Science
GEOG 1A: Physical Geography
PHSC 1: Physical Science Survey+
PHYS 2A: General College Physics+
PHYS 2B: General College Physics+
PHYS 4A: Physics Mechanics+

BIOLOGICAL SCIENCES:

AGNR 60: Environmental Science
AGNR 61: Environmental Science Lab
AGPS 20: Plant Science
ANAT 1: Human Anatomy
ANTH 1: Physical Anthropology
BIOL 1: Principles of Biology
BIOL 10: General Biology+
BIOL 5: Intro to Human Biology+
BIOL 6: Intro to Human Biology Lab+
BIOL 14: Heredity (PHY 10)
BIOL 15: Entomology (ZOOL 15)
BOT 1: General Botany
MICR 1: Microbiology
NHIS 15: Natural History
PHY 1: Physiology
ZOOL 1: General Zoology

LANGUAGE OTHER THAN ENGLISH

Proficiency is required by UC. CSU transfers do not need to meet this requirement. Proficiency is defined as two years of high school study in the same language with a "C" grade or better. If you have not satisfied this requirement in high school, you must take one of these courses:

FREN 1: Elementary French
GERM 1: Elementary German
JAPN 1: Elementary Japanese
RUSS 1: Elementary Russian
SL 90: American Sign Language I
SPAN 1: Elementary Spanish

CSU GRADUATION REQUIREMENT IN U.S. HISTORY AND AMERICAN IDEALS (Two courses, one from each group):

GROUP 1:

ECON 17: Economic History of the United States
HIST 17A: U.S. History and Government
HIST 17B: U.S. History and Government

GROUP 2:

POLS 2: Introduction to American Government

+Transfer credit may be limited by either UC or CSU or both (usually due to duplication of content). Students should consult with a counselor for additional information.

This is the approved list for courses taken Fall 2008 through Summer 2009. See www.assist.org for new course additions.

Associate of Arts – University Studies

The Associate of Arts degree, University Studies, is a degree program designed for transfer students who plan to obtain a Bachelor's degree. Completion of Option 1 or Option 2 will satisfy all-lower division general education requirements for the University of California or the California State University, respectively. Option 3 can be utilized with planning to meet the requirements of an independent or out-of-state university. Option 3 can also be used for majors that have many lower division courses required for the major and in cases where the CSU or UC has approved general education modifications. See www.assist.org and a counselor before selecting your GE Option and Area of Emphasis.

Choose one GE Option, one Emphasis, and transferable electives to total 60 units for the AA degree.

❖ **General Education – Choose Option 1, 2 or 3.**

OPTION 1: IGETC (Intersegmental General Education Transfer Curriculum)
Students who are planning to transfer to the **University of California** system or who are undecided about whether to transfer to a UC or CSU may satisfy general education requirements with IGETC.

1. Complete the 33 – 37 unit IGETC pattern on page 36 of the catalog.
2. Complete all IGETC courses with a grade of "C" or better.
3. Complete additional courses from an emphasis to meet the lower division requirements in your major and then electives to reach 60 units. UC transfer students must select all 60 units from courses on the UC transferable course list. (See www.assist.org)
4. Achieve a minimum grade point average of 2.0. [UC will require a minimum transfer GPA of 2.4. A higher GPA will be required for admission to most campuses and for high demand majors.]

OPTION 2: CSU GE (California State Universities – General Education)
Students who are planning to transfer to one of the 23 campuses of the **California State University** system may satisfy general education requirements with the CSU pattern.

1. Complete the 39-unit CSU GE pattern on page 34 of the catalog.
2. Complete Communication, English, Critical Thinking, and Math requirements (Area A1, A2, A3 and B4) each with a grade of "C" or better.
3. Recommend completion of HIST 17A or 17B or ECON 17; and POLS 2 prior to transfer. These two courses are CSU graduation requirements and may be included as part of the 39-unit pattern.
4. Complete additional courses from an emphasis to meet the lower division requirements in your major and then electives to reach 60 units.
5. Achieve a minimum grade point average of 2.0 [A higher GPA will be required for admission to some campuses and for high demand and impacted majors.]

OPTION 3: Independent, Out-of-state universities, and high unit/specialized majors
Complete 30 units to satisfy a GE-modified plan (use the CSU pattern as a guide) including one course from each of the following areas:

A1:	Oral Communication
A2:	English 1A
B1 or B2:	Science course
B4:	Transfer-level math course
C1 or C2:	Arts or Humanities
D:	Social, Political and Economic institutions, and Behavior

Multi-cultural course (see pg. 27 for list).

Select additional courses from areas A3, B, C, D, or E from two different areas to total 30 or more GE units.

Note: Any student completing the IGETC or CSU General Education requirements with the inclusion of a multicultural course will also have met the general education requirements for the Shasta College associate degree.

❖ **Emphasis:** Choose one of the University Studies emphases of 18 or more units to correspond with your choice of transfer major. Note that each university determines its own list of courses required for the major, so completion of an emphasis does not guarantee that all transfer major courses have been completed nor does it guarantee admission to the University. See a Counselor for comprehensive planning.

❖ **Electives:** Complete transferable electives to total 60 or more transferable units.

A.A. University Studies
Area of Emphases

(Pending Chancellor's Office Approval)

Agriculture Sciences – 18 units
The emphasis in Agriculture Sciences is designed to provide the lower division major courses to transfer to a university and earn a Bachelor's degree in Agriculture, Agriculture Business, and Horticulture.

Select 12 – 18 units:
AGAB 54 or 51
AGAS 19 or 11
AGPS 20
AGPS 24
CHEM 2A

Select the remaining transferable units (#1-99) from the following disciplines:
AG, AGAS, AGAB, AGEH, AGEQ, AGPS, AGSA, AGMA, AGNR, AGVETT, AGVIT

Allied Health – 20 units
The emphasis in Allied Health is designed to provide the lower division major courses to transfer to a university and earn a Bachelor's degree in Nursing or in other allied health fields.

Complete the following:

ANAT 1	Human Anatomy
CHEM 2A	Introduction to Chemistry
MICR 1	Microbiology
PHYS 1	Physiology

Behavioral Science (2003) – 18 units
The Behavioral Sciences focus on the understanding of human beings, their actions and interactions, decision making processes, communication strategies, and the methods of inquiry used in the field. The A.A. in University Studies, Behavioral Sciences emphasis is a good option for students wishing to transfer to a four-year college or university to pursue a baccalaureate degree in anthropology, psychology, social work, and sociology.

Complete the following:

PSYC 1A	General Psychology
MATH 14	Statistics
SOC 1	Intro to Sociology
BIOL 1, 5, 6, 10, or PHY 1	
ANTH 2	Cultural Anthropology
ECE 1	Human Development

Biological Sciences - 18 units
The Biological Sciences emphasis is designed to provide the lower division major preparation for transfer in Biological Sciences.

Complete the following units:

BIOL 1	Principles of Biology
BOT 1	General Botany
ZOOL 1	General Zoology
CHEM 1A	General Chemistry
CHEM 1B	General Chemistry

Business Administration (0505) – 18 units
The emphasis in Business Administration is designed to provide students with the common core of lower division courses required by most universities to transfer and pursue a baccalaureate degree in Business Administration. This includes business degrees with options such as accounting, finance, human resources management, international business, management, operations management, and marketing. See a counselor before selecting your electives.

ACCT 2	Financial Accounting		3
ACCT 4	Managerial Accounting		3
ECON 1A	Principles of Microeconomics		3
ECON 1B	Principles of Macroeconomics		3
Choose 2:	MATH 8	Finite Mathematics	6
	MATH 9	Survey of Calculus or Math 3A	
	MATH 14	Statistics	
	BUAD 6	Business Law	
	BUAD 10	Introduction to Business	
	CIS 1	Computer Literacy	

Child Development - 18 units
The Child Development emphasis is designed to provide the lower division major courses to transfer to a university and earn a Bachelor's degree in Child Development or Early Childhood Education.

Complete the following 12 units:

ECE 1	Human Development
ECE 2	Child, Family, and Community
ECE 7	Early Childhood Observation and Assessment
ECE 15	Health and Safety in Children's Programs

Choose 6 additional units from the following:

ECE 4	Introduction to Early Childhood Education
ECE 8	Teaching Practices for Young Children
ECE 13	Environments for Infant/Toddler, Preschool or School-Age Child Care
ECE 20	E.C. Curriculum: Intro to Curriculum
ECE 26	(new course)
ECE 52	Guidance in Adult-Child Relations

Criminal Justice (2105) – 18 units
The emphasis in Criminal Justice is designed to provide the lower division major courses to transfer to a university and earn a Bachelor's degree in Criminal Justice.

ADJU 10	Intro to Administration of Justice	3
ADJU 15	Concepts of Criminal Law	3

Select 12 additional transferable units:

ADJU	11, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 30, 40, 41, 42

MATH 14, PSYC 1A, SOC 1, 2, LEGL 39, 40.

Engineering (0901) – 26 units
The emphasis in Engineering is designed to provide the lower division major courses to transfer to a university and earn a Bachelor's degree in the various fields of engineering. This includes Civil Engineering, Computer Engineering, Electrical Engineering, and Mechanical Engineering. See a counselor for the complete list of courses required for your engineering field and university -- the requirements typically total many more than 26 units and the general education areas are usually modified (see option #3).

MATH 3A	Calculus
MATH 3B	Calculus
MATH 4A	Calculus
PHYS 4A	Physics (Mechanics)
PHYS 4B	Physics (Electricity and Magnetism)

Choose 2 or more:
CHEM 1A, ENGR 17, 35, 45, CIS 61, MATH 4B or PHYS 4C

General Education units are modified for this major.

Humanities (4903) – 18 units
These courses emphasize the study of cultural, literary, humanistic activities and artistic expression of human beings. With careful planning, the Humanities emphasis will satisfy the lower division major courses to transfer to a university and earn a Bachelor's degree in the various fields of Humanities.

Select 18 transferable units from at least 3 of the following disciplines:

ART	1, 2, 3, 4, 6, 12, 21A
ENGL	1B, 10AB, 11AB, 12, 13AB, 14, 15, 16, 17, 18, 19, 20, 24, 25, 31, 33, 36, 91
Foreign Languages	(French, German, Japanese, Russian, Sign Language, Spanish)
HUM	2, 4, 70
MUS	1, 2, 3, 4, 5, 7, 10, 11
PHIL	6, 7, 8, 10
THTR	1, 5, 8, 9, 12, 13, 30, 31, 33, 34, 37
CMST	30
DAN	(up to 3 units of Dance may apply to the emphasis)

Language Arts (1502) – 18 units
With careful planning, the Language Arts emphasis will satisfy the lower division major courses to transfer to a university and earn a Bachelor's degree in the various fields of Language Arts.

Select 18 transferable units from at least two areas:

CMST	10, 20, 30, 40, 54, 60
ENGL	1B, 1C, 10AB, 11AB, 12, 13AB, 14, 15, 16, 17, 18, 19, 20, 24, 25, 31, 33, 36, 91
Foreign Languages:	
FREN	1,2,3,4
GERM	1, 2, 3, 4
JAPN	1, 2, 3, 4, 19, 20
RUSS	1, 2, 3, 4
SPAN	1, 2, 3, 4, 19, 20
SL	90,91,92,93,94,95,96
JOUR	21, 27, 29

Liberal Studies – Elementary Teacher Prep (4901) – 34 units

The Liberal Studies emphasis prepares students to transfer as a Liberal Studies major to campuses of the California State University system. This is the bachelor's degree major students select to prepare as an elementary school teacher and earn a multiple subjects credential. The emphasis aligns with the Lower Division Transfer Pattern (LDTP) of the CSU system. See a counselor for this major – many if not all courses satisfy the general educational pattern.

CMST 60	Public Speaking
PHSC 1 and/	Physical Science Survey
or ESCI 12	Earth Science Survey
BIOL 10	General Biology
Math 41B and/or A	Concepts of Elementary Math
GEOG 8	World Regional Geography
HUM 2	Exploring the Humanities
HIST 2	World Civilization to 1500 C.E.
HIST 17A	US History
POLS 2	American Government

Choose 0-6 units from:
ANTH 2, ECE 1, EDUC 1, EDTE 51, 52, 61, 62, GEOG 7, HIST 3, HIST 17B.

Mathematics – 19 units

The Mathematics emphasis is designed to provide lower division major courses to transfer to a university and pursue a baccalaureate degree in mathematics.

Complete the following:

MATH 3A	Calculus 3A	4 units
MATH 3B	Calculus 3B	4 units
MATH 4A	Calculus 4A	4 units
MATH 4B	Calculus 4B	4 units
MATH 14	Intro to Statistics	3 units

Multicultural Studies (2202.10) – 18 units

This emphasis expands a student's understanding of other cultures and is good preparation for university majors in Multicultural Studies, Ethnic studies, and International relations. With careful planning it could be also be used for students interested in International Business, geography, and secondary teaching. Students in the Multicultural Studies program will be exposed to a diversity of non-western cultures, an increasingly valuable knowledge base in our global society.

Select 18 units from at least 3 different disciplines:

ANTH 2, 14, 25
ART 4
CMST 20
ENGL 10A, 10B, 18, 20, 24
GEOG 1B, 7, 8
HIST 25, 35, 36, 38
POLS 20, 25
PSYC 20, 41
SOC 25

Natural Sciences (4902) – 18 units

The Natural Sciences emphasis is designed to provide lower division major courses to transfer to a university and pursue baccalaureate degrees in life science and physical science areas.

Select 18 transferable units from the following disciplines:

ANAT	1
ASTR	1
BIOL	1, 5, 6, 10, 11, 12, 14, 60
BOT	1
CHEM	1A, 1B, 2A, 2B, 10, 11, 70, 70A, 71, 71A
ESCI	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 17, 18
MICR	1
NHIS	15
PHSC	1
PHY	1, 5
PHYS	2A, 2B, 4A, 4B, 4C
ZOOL	1

AGAS 19, AGPS 20, AGEH 33, AGNR 60, 61, 67, FSS 25

Physical Education/Kinesiology (0835) – 18 units
The Physical Education/Kinesiology emphasis is designed to provide lower division major courses to transfer to a university and pursue baccalaureate degrees in Physical Education – teaching, kinesiology, and pre-physical therapy.

Select 18 transferable units from at least 3 areas:

ANAT	1
CHEM	1A, 1B, 2A, 2B
FSS	25
HLTH	1, 2, 3, 5, 8, 9, 10
MATH	14 or 2
PE	Physical Education
PEAT	Physical Education – Athletics
PHY	1
PHYS	2A, 2B
PSYC	1A

Physical Sciences (4902) – 22 units
The Physical Sciences emphasis is designed to provide students with the lower division major courses to transfer to a university and pursue baccalaureate degrees in chemistry, geology, physics, and related areas. See a counselor for the complete list for your choice of transfer university and major.

Complete the following:
CHEM 1A and 1B
PHYS 2A + 2B; or PHYS 4A + 4B
MATH 3A

Quantitative Reasoning – 18 units
The quantitative reasoning emphasis is a flexibly designed option which, with proper counseling, provides transfer coursework toward majors in computer science and math.

Select a minimum of 18 units from the following mathematics and computer science courses:

MATH	2, 3A, 3B, 4A, 4B, 8, 9, 10, 13, 14
CIS	2, 60, 61, 62, 63, 72

Social Sciences (2201) - 21 units
The A.A. in University Studies, Social Sciences emphasis is designed to provide students with a strong foundation for the study of humanity from diverse perspectives. It is an excellent starting point for students interested in pursuing baccalaureate degrees in anthropology, history, political science, psychology, sociology.

Select 9 units from 3 different disciplines:

ANTH 2	POLS 1 or 25
ECON 1A, 1B, 2, or 17	PSYC 1A
MATH 14	SOC 1

Select the remaining 12 units from the following list:

ANTH 1, 2, 14, 25	HIST 1A,1B,2,3,17A,17B,25,35,36,38,40,55,57
ARCH 3, 4A	MATH 14
ECE 1, 2	PHY 5
ECON 1A, 1B, 2, 17	POLS 1, 2, 20, 25
FSS 16, 18	PSYC 1A, 15, 16, 17, 20, 41, 46
GEOG 1A, 1B, 7, 8	SOC 1, 2, 15, 22, 25

World Languages (1101) – 18 units
The World Languages emphasis is recommended for students pursuing intermediate fluency in a world language to facilitate communication in professional settings or to begin the first two years of a language or literature major and transfer to a university.

Select 13 units (or through level 4) of a foreign language:

FREN 1, 2, 3, 4	RUSS 1, 2, 3, 4
GERM 1, 2, 3, 4	SL 90, 92, 94, 96
JAPN 1, 2, 3, 4	SPAN 1, 2, 3, 4

Select the remaining units from:

ENGL 10AB, 25	RUSS 1, 2, 3, 4
FREN 1, 2, 3, 4	SL 90, 91, 92, 93, 94, 96
GERM 1, 2, 3, 4	SPAN 1, 2, 3, 4, 19, 20
JAPN 1, 2, 3, 4, 19, 20	

Degrees and Certificates

Accounting Clerk/Bookkeeper

Completion of the Certificate Program will prepare the student for entry-level position in accounts receivable, accounts payable, payroll, and general ledger.

REQUIREMENTS FOR CERTIFICATE:

Recommended Course Sequence:

First Semester (Fall)

ACCT 101**	Basic Accounting I	3
BUAD 106	Business Math	3
BUAD 166	Business English	3
OAS 51	Keyboarding I-Beginning Typing	3
OAS 166	Records Management	2

Second Semester (Spring)

ACCT 102**	Basic Accounting II	3
ACCT 103	PC Accounting	2
ACCT 104	Payroll Accounting	2
BUAD 10	Introduction to Business	3
BUAD 66	Business Communications	3
CIS 10	Excel for Windows-I	1
OAS 64	Computerized Ten-Key	0.5
	TOTAL UNITS FOR CERTIFICATE:	**28.5**

**Student may take ACCT 2 in place of ACCT 101 or ACCT 102

Administration of Justice

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:

The Administration of Justice Program (AOJ) is designed to provide professional courses in AOJ fields for the pre-service student, and for the criminal justice employee preparing for promotional exams or to upgrade or maintain skills and knowledge. At Shasta College, you will receive occupational training for both the entrance and promotional levels of AOJ agencies and allied services. With additional general education courses, you will also be able to fulfill the requirements to transfer to a four-year college with junior standing. A variety of agencies exist at the federal, state and local levels of government; and also through private industry.

The Modular Basic Police Academy consists of three courses: 1) ADJU 131, Level III, 162 hours, offered in the evenings during the Fall semester with some weekend hours; 2) ADJU 132, Level 11, 228 hours, offered on weekends during the Spring semester, with some evening hours; and 3) Butte Community College Level I, 350+ hours offered on weekends during the Summer, Fall and Spring. Students successfully completing the above three courses are regular police-academy trained.

A student must maintain a "C" AVERAGE in course work applying to the Administration of Justice degree.

Recommended Course Sequence:

First Semester (Fall)

ADJU 10	Introduction to Admin. of Justice	3
ADJU 17	Principles and Procedures of the Justice System	3
ADJU 23	Career Planning for Admin. of Justice	3

Second Semester (Spring)

ADJU 15	Concepts of Criminal Law	3
ADJU 16	Legal Aspects of Evidence	3

Third Semester (Fall)

ADJU 20	Principles of Investigation	3
ADJU 26	Courtroom Testimony/Report Writing	3

Fourth Semester (Spring)

ADJU 18	Community Relations	3

In addition to the required major courses, six (6) units must be selected from below:

ADJU 11	Traffic Control and Investigation	3
ADJU 21	Police Field Operations	3
ADJU 22	Juvenile Procedures	3
ADJU 24	Multi-Cultural Issues/Law Enforcement	3
ADJU 25	Substantive Law	3
ADJU 30	Wildlife Law Enforcement	3
ADJU 40	Institutional and Field Services	3
ADJU 41	Fundamentals of Crime and Delinquency	3
ADJU 42	Interviewing and Counseling	3
CIS 1	Computer Literacy Workshop	3

Associate in Science Degree Requirements	
Major	**30**
General Education	****21**
Electives	**9**
TOTAL	**60**

The general education requirement includes English Composition. The Administration of Justice student may choose the following alternative by enrolling in *ENGL 190 (4 units)* ***or* *BUAD 166 (3 units)* ***or*** *all three of the following*: ENGL 191, ENGL 193 and ENGL 194 (4 units)

Agriculture

The Agriculture Program provides training for ranching and farming careers and agriculture related jobs in education, sales, services, and distribution of agriculture-related products. Students should contact their counselor or agriculture faculty advisor to choose electives for the particular career they are planning to enter.

Particular attention should be paid to course prerequisites.

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:

Recent input from industry and past graduates indicates that advanced levels of mathematics and English are essential for adequate career preparation. Students who are unable to qualify for the advanced levels of mathematics and English are encouraged to begin their mathematics and English sequence courses as soon as possible.

Recommended Course Sequence:

First Semester (Fall)

AGAB 51	Agriculture Records and Analysis	3
AGAB 54	Resource Economics	3
AG 1	Career Planning for Agriculture	2
AG 9	Agriculture/Natural Resources Leadership	1
CMST 54*	Small Group Communication	3
AGNR 83	Introduction to Global Positioning Systems	1

Second Semester (Spring)

AGAS 19*	Principles of Animal Science	3
AGPS 20	Plant Science	4
MATH 102	Intermediate Algebra **OR**	4
MATH 13	College Algebra **OR**	3
MATH 14	Introduction to Statistics	3
	General Education (Social Science)	3
	General Education (Humanities)	3

Third Semester (Fall)

AG 94	Agriculture Worksite Learning	3
CHEM 2A	Introduction to Chemistry	5
AG 52	Computers in Agriculture/Natural Resources	3
AGAS 30	Livestock Production	3
AGAS 11	Feeds and Feeding	3

Fourth Semester (Spring)

AGPS 24	Soils	3
ENGL 1A	College Composition	4
AG 6	Career Placement - Agriculture	1
AGMA 44	Introduction to Construction Skills for Agriculture and Natural Resources	3
	General Education (Multicultural/Living Skills)	3

Associate in Science Degree Requirements	
Major	**51-52**
General Education	**9**
TOTAL	**60-61**

*Can be used to fulfill General Education requirements.

1. Students planning to transfer to a college or university should consult a counselor or Agriculture faculty regarding transfer requirements. **TRANSFER REQUIREMENTS MAY BE DIFFERENT FROM A.S. DEGREE REQUIREMENTS.**
2. Sixty (60) units are required for the AS Degree. All graduation requirements are met.

Agriculture-Environmental Horticulture Transfer Degree

Also see Agriculture-Horticulture for other Degree/Certificates

The Environmental Horticulture Transfer Degree is a 2+2 program providing students the opportunity to complete all lower division coursework at Shasta College for a B.S. degree in Environmental Horticulture at CSU Chico. This is a special major at Chico State and is only available to transfer students. Students interested in more details about this degree should contact the Horticulture Dept at 242-2210.

While completing transfer requirements, students will also receive training adequate for job placement in areas of landscape management, wholesale and retail nursery and related horticultural fields.

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:

REQUIRED MAJOR CORE COURSES

First Semester - Fall		
ENGL 1A*	College Composition	4
AGEH 22	Nursery Practices and Plant Propagation	2
AGEH 27, 28 & 29	Plant Identification and Taxonomy	3
AGEH 33	Environmental Horticulture **OR**	
AGPS 20	Plant Science	3
AREA E*	Any Area E Course	3
AREA C#	Any Ethnic Studies or Non-Western Course	3
Second Semester – Spring		
HIST 17A **or** 17B**	U.S. History and Government	3
AGEH 23	Nursery Practices and Management	2
AGEH 35	Landscape Design	3
AGEH 37	Nursery and Florist Management **OR**	
AGAB 54	Agriculture Economics	3
CMST 54 or A1*	Small Group Communication	3
AREA C1	Any C1 Course	3
Third Semester – Fall		
AGMA 44	Introduction to Construction Skills for Ag/Nat Res.	3
AGEH 31	Landscape Irrigation	3
CHEM 2A	Introduction to Chemistry	5
POLS 2**	Introduction to American Government	3
AREA A3*	Any A3 Course	3
Fourth Semester – Spring		
AGPS 24	Soils	3
AGEH 7	Horticulture Career Survey and Placement	1
AGEH 38	Landscape and Turf Management	3
MATH 14*	Introduction to Statistics	3
SPAN 1 **or** C2*	Elementary Spanish	3-5
AREA D#	Any Non-Western or Ethnic Studies course	3
	TOTAL UNITS FOR DEGREE	**68-70**

Note: All courses must be completed with a grade of C or higher
* These courses fulfill general education requirements for transfer
** These courses fulfill the U.S. History, Constitution, and American Ideals requirement
# Students must have one Ethnic Studies and one Non-Western course

Agriculture-Equine Science

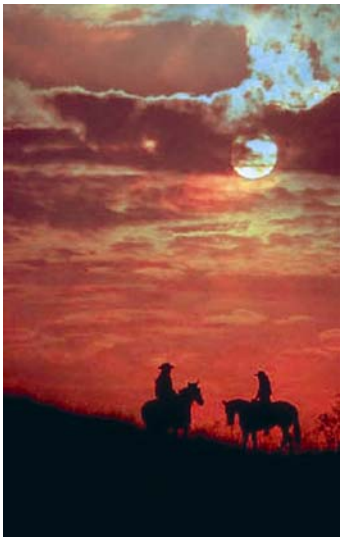
This curriculum is designed to provide training in a wide variety of jobs available in the Equine industry; jobs including horse training, horse grooming and care, horse packing, stable management, and others. Classes for this major will mainly be offered during the evening program. Students interested in this major should secure a worksite position early in the program to confirm their desire for working in this industry as well as gaining practical experience.

Students planning to transfer to a college or university should consult a Counselor or Agriculture Faculty Advisor regarding transfer requirements. **TRANSFER REQUIREMENTS MAY BE DIFFERENT FROM ASSOCIATE IN SCIENCE DEGREE REQUIREMENTS**.

Students who do not qualify for advanced levels of mathematics are strongly encouraged to enroll in MATH 100 Technical Applications of Math as preparation for degree requirements. Sixty (60) units are required for an A.S. degree. All graduation requirements are met.

Recommended Course Sequence:

First Semester (Fall)		
AGEQ 12	Horsemanship	3
AGNR 52	Computers in Agriculture/Natural Resources	3
AG 94	Agriculture Worksite Learning	3
AG 1	Career Planning for Agriculture	2
CMST 54*	Small Group Communication	3
AG 9	Agriculture and Natural Resources Leadership	1
Second Semester (Spring)		
AGEQ 13	Horse Husbandry	3
ENGL 1A*	College Composition	4
AGPS 20*	Plant Science	4
AGMA 44	Introduction to Construction Skills for Ag and Nat. Resources	3
MATH 101*	Basic Algebra	3
Third Semester (Fall)		
AGVETT 16	Veterinary Practices	2
AGEQ 21	Horse Management	3
AGAB 51	Agriculture Records and Analysis	3
AGAB 54	Agriculture Economics	3
AGEQ 111	Handling Problem Horses	3
	General Education (Multicultural/Living Skills)	3
Fourth Semester (Spring)		
AG 6	Career Placement - Agriculture	1
AGAS 11	Feeds and Feeding	3
AGPS 24	Soils	3
	General Education (Humanities)	3
	General Education (Social Science)	3
	Required Electives	3



Associate in Science Degree Requirements	
Major	**53**
General Education	**9**
Electives	**3**
TOTAL	**65**

Suggested additional courses which will broaden the AS Degree (recommended consultation with Agriculture faculty):

AGEQ 14	Western Riding and Training	3
AGEQ 109	Equine Reproduction	1.5
AGEQ 110	Horse Training	3
AGEQ 112	Horseshoeing	2
AGEQ 113	Horse Ownership and Basic Handling	3
AGEQ 114	Beginning English Riding and Training	3
AGEQ 115	Intermediate English Riding and Training	2

*Can be used to fulfill General Education requirements.

REQUIREMENTS FOR CERTIFICATE:

CORE COURSES FOR CERTIFICATE:

AG 6	Career Placement - Agriculture	1
AGAS 11	Feeds and Feeding	3
AGEQ 12	Horsemanship	3
AGEQ 13	Horse Husbandry	3
AG 94	Agriculture Worksite Learning	3
AG 1	Career Planning for Agriculture	2
AGEQ 21	Horse Management	3
AGEQ 111	Handling Problem Horses	3

Required Elective Courses: Choose nine (9) units from the following:

AGEQ 14	Western Riding and Training	3
AGEQ 109	Equine Reproduction	1.5
AGEQ 110	Horse Training	3
AGEQ 112	Horseshoeing	2
AGEQ 113	Horse Ownership and Basic Handling	3
AGEQ 114	Beginning English Riding and Training	3
AGEQ 115	Intermediate English Riding and Training	2
AG 9	Agriculture and Natural Resources Leadership	1
AGMA 44	Introduction to Construction Skills for Ag and Nat. Res.	3
	TOTAL UNITS FOR CERTIFICATE	**30**

Agriculture-Equipment Operations and Maintenance

This curriculum is designed to provide employable skills essential to several occupations and emphasizes the "learning-by-doing" method of instruction on modern up-to-date equipment.

REQUIREMENTS FOR CERTIFICATE:

CONS 45	Career Planning and Leadership for Heavy Equipment Operators	2
CONS 46	Equipment Operations and Maintenance	3
CONS 48	Surveying for Equipment Operators	2
CONS 55 CONS 94	Equipment Operations Skills Development **OR** Construction Technology - Worksite Learning	1-2
AGPS 24 DIES 48	Soils **OR** Hydraulics	3 3.5
AGMA 44 WELD 70	Introduction to Construction Skills for Agriculture and Natural Resources **OR** Beginning Welding	**3**
CONS 47	Project Construction for Equipment Operations	3
MATH 100*	Technical Applications of Mathematics **or Math Placement Level 3 or higher*	3
AGNR 66	Watershed Restoration Practicum	1
	Current CPR/First Aid Certification (Required)	
	TOTAL UNITS FOR CERTIFICATE	**21-22.5**

Suggested Courses: CONS 149, AUTO 1, DIES 166, DIES 170, ENGR 118, CMST 54, WELD 170, English, Computers

Agriculture-Forest Science and Technology

The job market in forestry is strong with respect to both permanent and seasonal employment. On average, 70-80% of seasonal Natural Resources job openings in northern California are for forestry technicians. Duties will vary, but generally include timber inventory and marking, harvest plan layout, ecosystem restoration work, and wildlife surveys. Today, this new forestry must focus on the ecosystem as a whole while realizing we still need to provide a myriad of values from our forests. Such values include biodiversity, clean air and water, and recreation in addition to wood products. By properly applying ecological principles to manage our forests, we can enhance biodiversity and lessen the impact of our consumption on forests around the world.

On average, seasonal forestry technicians are paid anywhere from $10-$15 per hour. Permanent jobs for qualified technicians start around $30,000 - $40,000 per year with benefits. Students who complete the A.S. degree in Forest Science and Technology will be well prepared to transfer to a four-year degree at Humboldt State, Cal-Poly San Luis Obispo, or other out-of-state institutions such as the University of Idaho. Students should contact a member of the forestry/natural resources faculty to discuss career options and courses.

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE

Students who do not qualify for advanced levels of mathematics are strongly encouraged to enroll in MATH 100-Technical Applications of Math as preparation for degree requirements.

Recommended Course Sequence:

First Semester (Fall)

AGNR 52	Computers in Agriculture/Natural Resources	3
AGNR 1	Introduction to Natural Resources	3
AGNR 50	Natural Resources Measurements	4
AGNR 66	Watershed Restoration Practicum	1
AGNR 83	Introduction to Global Positioning Systems (GPS)	1
MATH	Math competency (MATH 101)	3

Second Semester (Spring)

FIRS 118	Introduction to Wildland Fire	1.5
AGNR 6	Native Plant Identification	3
AGNR 8	Career Placement – Natural Resources	1
AGNR 10	Satellite Imagery and Mapping Techniques for NR	4
ENGL	English Composition requirement	3-4
CMST	Oral Communication requirement	3

Summer Session

AGNR 94	Natural Resources Worksite Learning	1-2

Third Semester (Fall)

AGNR 51	Silviculture	2
AGNR 53	Forest Protection and Restoration	4
AGNR 64	Water Resources	3
AGNR 65	Forest Ecology	3

Fourth Semester (Spring)

AGNR 54	Introduction to Forest Products	2
AGNR 55	Timber Harvesting Systems and Equipment	2
AGNR 70	Wildlife Management and Conservation	3
	General Education (Multicultural/Living Skills)	3
	General Education (Humanities)	3
	General Education (Social and Behavioral Science)	3

Associate in Science Degree Requirements	
Major	**42.5-43.5**
General Education	**18**
TOTAL	**60.5-61.5**

Agriculture-Horticulture

Also see Agriculture-Environmental Horticulture for Transfer Degree information

The Green Industry is a huge industry with many different career opportunities. Nursery sales exceed $55 billion nationally. California sells $13.26 billion in nursery and floral products annually and the Landscape Industry continues to grow rapidly as population increases both statewide and locally. The Shasta College Horticulture Program will introduce students to an array of horticulture opportunities and provide them with the necessary skills to begin a career in the horticultural field. Job opportunities continue to outnumber the number of graduates in our local area. Career choices range from city and county parks; state and federal organizations; garden centers, independent, local and national chains; landscape maintenance business; floral design and arrangement; landscape design and installation and nursery and landscape management positions. Courses include directed practical experience in a modern horticulture facility that includes a floral lab room, 7,000 square feet of greenhouses and 20,000 square feet of landscaping. Many landscaping operations are also done on the beautiful 300-acre college campus.

Students should contact their counselor or environmental horticulture faculty advisor to choose electives for the particular career they are planning to enter. Particular attention should be paid to course prerequisites.

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE

Students who do not qualify for advanced levels of mathematics are strongly encouraged to enroll in MATH 100-Technical Applications of Math as preparation for degree requirements.

Recommended Course Sequence:

First Semester (Fall)		
AGNR 52	Computers in Agriculture/Natural Resources	3
AGEH 22	Nursery Practices and Plant Propagation	2
AGEH 27	Plant Identification and Taxonomy	1
AGEH 28	Plant Identification and Taxonomy	1
AGEH 29	Plant Identification and Taxonomy	1
AGEH 33	Environmental Horticulture	3
	General Education (Oral Communication)	*3*
Second Semester (Spring)		
AGEH 23	Nursery Practices and Management	2
AGEH 35	Landscape Design	3
AGEH 38	Landscape and Turf Management	3
MATH 101	Basic Algebra	3
	General Education (Multicultural/Living Skills)	*3*
Third Semester (Fall)		
ENGL 1A*	College Composition	4
AGMA 44	Introduction to Construction Skills for Agriculture and Natural Resources	3
AGEH 31.1	Landscape Irrigation - Design	1
AGEH 31.2	Landscape Irrigation - Installation	1
AGEH 31.3	Landscape Irrigation – Troubleshoot and Schedule	1
AGEH 94	Horticulture Worksite Learning	1-4
	General Education (Humanities)	*3*
Fourth Semester (Spring)		
CHEM 2A	Introduction to Chemistry	5
AGPS 24	Soils	3
AGEH 7	Horticulture Careers Survey and Placement	1
AGEH 26	Plant Protection	3
AGNR 83	Introduction to Global Positioning Systems (GPS)	1
	General Education (Social Science)	*3*
	Elective courses to complete A.S. Degree	*1-2*

Associate in Science Degree Requirements	
Major	**46-49**
General Education	**12**
Electives	**1-2**
TOTAL	**60-63**

*Can be used to fulfill General Education requirements.

1. Students planning to transfer to a college or university should consult a counselor or Horticulture Faculty Advisor regarding transfer requirements. **TRANSFER REQUIREMENTS MAY BE DIFFERENT FROM A.S. DEGREE REQUIREMENTS.**
2. Sixty (60) units are required for the A.S. Degree. All graduation requirements are met.

Certificate requirements listed on next page

Ag-Horticulture Program continued:

REQUIREMENTS FOR AG-HORTICULTURE CERTIFICATE:

CORE COURSES FOR CERTIFICATE:

ENGL 190	Reading and Writing II **(see below for alternative)	4
AGPS 24	Soils	3
AGMA 44	Introduction to Construction Skills for Ag & Natural Res.	3
AGNR 52	Computers in Agriculture/Natural Resources	3
AGEH 7	Horticulture Careers Survey and Placement	1
AGEH 22	Nursery Practices and Plant Propagation	2
AGEH 23	Nursery Practices and Management	2
AGEH 26	Plant Protection	3
AGEH 27	Plant Identification and Taxonomy	1
AGEH 28	Plant Identification and Taxonomy	1
AGEH 29	Plant Identification and Taxonomy	1
AGEH 31.1	Landscape Irrigation – Design	1
AGEH 31.2	Landscape Irrigation – Installation	1
AGEH 31.3	Landscape Irrigation – Troubleshoot/Schedule	1
AGEH 33	Environmental Horticulture	3
AGEH 35	Landscape Design	3
AGEH 37	Nursery and Florist Management	3
AGEH 38	Landscape and Turf Management	3
AGEH 94	Horticulture Worksite Learning	1-4
MATH 100	Tech. Applications of Math or Math Placement Level 3	3
AGNR 83	Introduction to Global Positioning Systems (GPS)	1
	TOTAL UNITS FOR CERTIFICATE	**44-47**

Students may choose one of the following alternatives: ENGL 190 **OR a combination of ENGL 191, **and** two units selected from the following courses: ENGL 192, ENGL 193 or ENGL 194 for a total of 4 units.

Agriculture-Horticulture – Master Floral Design Certificate

This curriculum is designed to provide floral design skills for entry-level jobs within the industry and training for advancement not easily available from on-the-job training.

REQUIREMENTS FOR CERTIFICATE:

Fall Semester

AGEH 34	Beginning Floral Design – Fall Flowers	2
AGEH 36	Floral Design for Weddings/Special Occasion	2
AGEH 41	Selection and Care of Blooming and Tropical Plants	1.5
AGEH 45	Holiday Decorations and Banquets	1.0

Spring Semester

AGEH 37	Nursery and Florist Management	3
AGEH 40	Intermediate Floral Design	2
AGEH 44	Beginning Floral Design – Spring Flowers	2

Summer Semester

AGEH 39	Tropical Floral Design	1.5
AGEH 94	Horticulture Worksite Learning	1-2
	TOTAL UNITS FOR CERTIFICATE	**16-17**

RECOMMENDED COURSES (not required):

BUAD 45	Human Relations on the Job
AGEH 7	Horticulture Careers Survey and Placement
AGEH 23	Nursery Practices & Management
AGEH 27, 28, 29	Plant Identification and Taxonomy
AGEH 97	Special Topics in Environmental Horticulture

Agriculture-Horticulture - Irrigation Certificate

The Irrigation Certificate Program provides students with the skills, knowledge and hands-on experience necessary to meet the Irrigation Association standards to apply for the Auditor, Contractor or Designer Exams. Students will develop the basic skills and knowledge about irrigation principles and practices. They will explore and become familiar with the current practices in agriculture, landscape, turf management and residential industries. Students will have access to practical applications and computer training on these topics as well as worksite learning opportunities. Basic soil and plant science, electrical principles and pumping technologies will be covered.

REQUIREMENTS FOR CERTIFICATE:

CORE COURSES:		
AGPS 25	California Water	3
AGEH 31	Landscape Irrigation	3
AGPS 24	Soils	3
AGEH 35	Landscape Design	3
In addition, students must complete one of the following:		
AGPS 20	Plant Science	4
AGMA 44	Introduction to Construction Skills for Agriculture and Natural Resources	3
AGEH 38	Landscape and Turf Management	3
AGEH 94	Horticulture Worksite Learning	1-4
	TOTAL UNITS FOR CERTIFICATE:	**13-16**

In addition to the core courses, students will need to complete additional hours of work experience in order to take the Contractor or Designers Certification Exam with the Irrigation Association. Shasta College plans on making these opportunities available through Horticulture Worksite Learning (AGEH 94). Those students taking the Certified Irrigation Contractors exam would also need skills in layout, staking, business, management, and codes.

Agriculture-Horticulture – Landscape &Turf Management

Students completing this certificate will be able to plant and maintain landscapes and turf grass for recreational, municipal, commercial and residential use.

REQUIREMENTS FOR CERTIFICATE:

AGPS 24	Soils **OR**	3
CONS 46	Equipment Operations and Maintenance	3
AGMA 44	Introduction to Construction Skills for Agriculture and Natural Resources	3
AGEH 26	Plant Protection	3
AGEH 31.1	Landscape Irrigation – Design	1
AGEH 31.2	Landscape Irrigation – Installation	1
AGEH 31.3	Landscape Irrigation – Troubleshoot/Schedule	1
AGEH 38	Landscape and Turf Management	3
AGEH 75	Water Gardening	1
AGEH 94	Horticulture Worksite Learning	1
	TOTAL UNITS FOR CERTIFICATE:	**17**

Agriculture-Horticulture – Retail Nursery Sales

This curriculum is designed to help prepare the student for the certification exam administered by the California Association of Nurseries and Garden Centers, and entry into the world of Ornamental Horticulture. The requirement of work experience is an important part of this certification. See details on the CANGC.org website.

REQUIREMENTS FOR CERTIFICATE:

AGEH 23	Nursery Practices & Management	2
AGEH 26	Plant Protection	3
AGEH 27	Plant Identification and Taxonomy	1
AGEH 28	Plant Identification and Taxonomy	1
AGEH 29	Plant Identification and Taxonomy	1
AGEH 35	Landscape Design	3
AGEH 38	Landscape and Turf Management	3
AGEH 94	Horticulture Worksite Learning	1-3
	TOTAL UNITS FOR CERTIFICATE:	**15-17**

RECOMMENDED COURSES (not required):

BUAD 45	Human Relations on the Job
BUAD 106	Business Mathematics
AGEH 37	Nursery and Florist Management
MKTG 72	Advertising

Agriculture - Natural Resources

This curriculum is designed to provide technician-level training for students interested in working in such areas as wildlife, forestry, range, and outdoor recreation. Typical employers include local, county, and U.S. Government agencies, as well as private companies. Particular attention should be paid to course prerequisites.

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:
Students who do not qualify for advanced levels of mathematics are strongly encouraged to enroll in MATH 100 Technical Applications of Math as preparation for degree requirements.

Recommended Course Sequence:

First Semester (Fall)

AGNR 52	Computers in Agriculture/Natural Resources	3
MATH	Math Competency/Analytical Thinking Requirement	3
AGNR 1	Introduction to Natural Resources	3
AGNR 50	Natural Resource Measurements	4
AGNR 66	Watershed Restoration Practicum	1
AGNR 83	Introduction to GPS	1

Second Semester (Spring)

AGMA 44	Introduction to Construction Skills for Agriculture and Natural Resources	3
AGNR 6	Native Plant Identification	3
AGNR 8	Career Placement for Natural Resources	1
AGNR 10	Satellite Imagery/Mapping Techniques for Nat. Resources	4
CMST	Oral Communication Requirement	3

Summer Session

AGNR 94	Natural Resources Worksite Learning	1
	General Education (Multicultural/Living Skills)*	3

*Note: Suggested courses: BUAD 45 and FSS 60

Third Semester (Fall)

AGNR 60	Environmental Science (Area 1-General Ed)	3
AGNR 59	Outdoor Recreation and Interpretation	3
AGNR 64	Water Resources	3
AGNR 65	Forest Ecology	3

Fourth Semester (Spring)

ENGL	English Composition Requirement	4
AGPS 24	Soils	3
AGNR 70	Wildlife Conservation and Management	3
	General Education (Humanities)	3
	General Education (Social Science)	3

Associate in Science Degree Requirements	
Major	**42**
General Education	**19**
TOTAL	**61**

*Can be used to fulfill General Education requirements.

1. Students planning to transfer to a college or university should consult a counselor or Natural Resource Faculty Advisor regarding transfer requirements.

REQUIREMENTS FOR CERTIFICATE:

Fall Semester

AGNR 52	Computers in Agriculture/Natural Resources	3
AGNR 1	Introduction to Natural Resources	3
AGNR 65	Forest Ecology	3
AGNR 66**	Watershed Restoration Practicum	1
AGNR 83	Introduction to GPS	1

Spring Semester

AGNR 6	Native Plant Identification	3
AGNR 10	Satellite Imagery/Mapping Techniques for Nat. Resources	4
AGNR 50	Natural Resources Measurements	4
AGNR 70	Wildlife Conservation and Management	3

Summer Semester

AGNR 94	Natural Resources Worksite Learning	1
	TOTAL UNITS FOR CERTIFICATE	**26**

**These courses also count towards the Watershed Restoration Certificate.

Agriculture-Veterinary Technician

The main program goal is to provide hands-on training to students interested in becoming Registered Veterinary Technicians (RVT). They will also receive the practical field experience working under a licensed veterinarian that is required in order to take the RVT exam. They will gain competencies in the following areas: 1) veterinary anatomy, physiology, and medical terminology; b) veterinary practices; c) fundamentals of animal health technology; d) health and diseases of animals; e) veterinary radiology and imaging; f) veterinary anesthesiology, surgical assisting and dentistry; and g) care of exotic and laboratory animals.

One of the advantages of having the new degree program is that students will be required to get work experience with a licensed veterinarian while taking classes, and should be able to complete the majority of required hours by the time they graduate. For more information or additional requirements, or for students pursuing the alternate route, they should obtain the Alternate Route Workbook from the California Veterinary Medical Association.

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:

Recommended Course Sequence:

First Semester (Fall)

AG 1	Career Planning for Agriculture	2
CMST 54*	Small Group Communication	3
AGVETT 1	Veterinary Anatomy, Physiology & Medical Terminology	4
MATH 101	Basic Algebra	3
AGVETT 16	Veterinary Practices	2
AG 94	Agriculture Worksite Learning	2

Second Semester (Spring)

CHEM 10*	Chemistry for Liberal Arts	3
AGAS 19	Principles of Animal Science	3
ENGL 1A*	College Composition	4
AGVETT 2	Fundamentals of Animal Health Technology	4
AG 94	Agriculture Worksite Learning	3
	General Education (Humanities)	3

Third Semester (Fall)

AGVETT 3	Health and Disease of Animals	4
AGNR 52	Computers in Agriculture and Natural Resources	3
AG 94	Agriculture Worksite Learning	2
AGVETT 4	Veterinary Radiology and Imaging	1
AGVETT 7	Veterinary Medical Records	1
	General Education (Social Sciences)	3

Fourth Semester (Spring)

AGVETT 5	Vet. Anesthesiology, Surgical Assist. and Dentistry	4
AGAS 11	Feeds and Feeding	3
AG 94	Agriculture Worksite Learning	2
AGVETT 6	Care of Exotic and Laboratory Animals	1
AG 6	Career Placement Agriculture	1
	General Education (Multicultural)	3

*Can be used to fulfill General Education requirements.

Associate in Science Degree Requirements	
Major	**55**
General Education	**9**
TOTAL	**64**

Art

This curriculum qualifies the student for the AA degree with a concentration in the Visual Arts. Transfer Art students should check course requirements with counselors or the transfer college.

REQUIREMENTS FOR ASSOCIATE IN ARTS DEGREE:
Students must complete the "CORE" courses and select nine (9) units from the "RESTRICTED ELECTIVE" courses listed below for their major. In addition, students must fulfill the 33-39 unit general education pattern for CSU or IGETC.

CORE COURSES:		***# of units***
ART 2	History of Western Art Through the Gothic Period	3
ART 3	History of Western Art Since 1400	3
ART 12	Beginning Form, Design and Color	3
ART 13	Intermediate Form, Design and Color	3
ART 21A/B	Freehand Drawing	6

RESTRICTED ELECTIVE COURSES:

Choose nine (9) units in 2-D or 3-D areas (i.e., Ceramics, Drawing, Painting, Glass, Photography, Printmaking, Sculpture)		9

Recommended Course Sequence:

First Semester (Fall)

ART 12	Beginning Form, Design and Color	3
ART 21A	Beginning Freehand Drawing	3
2-D or 3-D	Art Elective	3

Second Semester (Spring)

ART 13	Intermediate Form, Design and Color	3
ART 21B	Intermediate Freehand Drawing	3
2-D or 3-D	Art Elective	3

Third Semester (Fall)

ART 2	History of Western Art Through the Gothic Period	3

Fourth Semester (Spring)

ART 3	History of Western Art Since 1400	3
2-D or 3-D	Art Elective	3

Associate in Arts Degree Requirements	
Major	**27**
General Education	**33-39**
Electives	**0**
TOTAL	**60**

Automotive Machine Certificate

REQUIREMENTS FOR CERTIFICATE:

Recommended Course Sequence:

Fall Semester		
AUTO 150	Automotive Internal Combustion Engines Theory	3
AUTO 152	Automotive Engines Laboratory	3
Spring Semester		
AUTO 180	Automotive Machinist I	4
Fall Semester		
AUTO 181	Automotive Machinist II	4
AUTO 94	Automotive Technology - Worksite Learning	2
	TOTAL UNITS FOR CERTIFICATE	**16**

Automotive Technology

The Automotive Technology Program is designed to prepare students for employment and advancement in the automotive field. Curriculum requirements have been developed for certification by the National Institute for Automotive Service Excellence (ASE) program. The curriculum has been planned to provide technical knowledge and laboratory experiences related to a wide range of automotive applications.

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:

Recommended Course Sequence:

First Semester (Fall)		
AUTO 1	Vehicle Electrical Systems	3
AUTO 150	Auto. Internal Combustion Engines Theory	3
AUTO 152	Automotive Engines Laboratory	3
INDE 1	Career Planning for Industrial Technology	1
MATH 100*	Technical Applications of Mathematics	3
	General Education	3
Second Semester (Spring)		
AUTO 10	Automotive Electronics	3
AUTO 163	Automotive Heating & Air Conditioning	3
AUTO 147	Automotive Braking Systems	3
ENGL 190*	Reading and Writing II ** *(see alternative below)*	4
	General Education	3
Third Semester (Fall)		
AUTO 20	Engine Performance	4
AUTO 130	Automotive Steering & Suspension	3
AUTO 161	Manual Drive Trains & Axles	3
AUTO 94	Automotive Technology Worksite Learning	1
	General Education	3
Fourth Semester (Spring)		
AUTO 21	Advanced Engine Performance	3
AUTO 131	Automotive Wheel Alignment	2
AUTO 162	Automatic Transmissions and Transaxles	4
AUTO 94	Automotive Technology Worksite Learning	1
	General Education	6
Suggested Electives:		
AUTO 94	Auto. Tech. Worksite Learning (Additional units encouraged)	1-4
AUTO 172	Basic Area Clean Air Car Course	3
AUTO 180	Automotive Machinist I	4
AUTO 170	Automotive Service Principles	2
WELD 70	Beginning Welding	3

Associate in Science Degree Requirements	
Major	**47**
General Education	**15**
TOTAL	**62**

*Can be used to fulfill General Education requirements.

The General Education requirement includes English Composition. Students may choose one of the following alternatives: ENGL 190 **OR a combination of ENGL 191, **and** two units selected from the following courses: ENGL 192, ENGL 193 or ENGL 194 for a total of 4 units.

Automotive Technology Certificate continued on next page

Automotive Technology Program continued:

REQUIREMENTS FOR CERTIFICATE:

The goals of this program are the same as for the Associate of Science Degree in Automotive Technology except that there are only 6 General Education units required as opposed to the 21 General Education units required in the degree program. The objective is to allow the student to gain entry level skills specific to the automotive industry.

Recommended Course Sequence:

First Semester (Fall)		
AUTO 1	Vehicle Electrical Systems	3
AUTO 150	Auto. Internal Combustion Engines Theory	3
AUTO 152	Automotive Engines Laboratory	3
INDE 1	Career Planning for Industrial Technology	1
MATH 100	Technical Applications of Math	3
Second Semester (Spring)		
AUTO 10	Automotive Electronics	3
AUTO 163	Automotive Heating & Air Conditioning	3
AUTO 147	Automotive Braking Systems	3
ENGL 190*	Reading & Writing II **(see below for alternatives)	4
Third Semester (Fall)		
AUTO 20	Engine Performance	4
AUTO 130	Automotive Steering & Suspension	3
AUTO 161	Manual Drive Trains & Axles	3
Fourth Semester (Spring)		
AUTO 21	Advanced Engine Performance	3
AUTO 131	Automotive Wheel Alignment	2
AUTO 162	Automotive Transmissions and Transaxles	4
AUTO 94	Automotive Technology Worksite Learning	1
	TOTAL UNITS FOR CERTIFICATE	**46**

*Can be used to fulfill General Education requirements.
Students may choose one of the following alternatives: ENGL 190 **OR a combination of ENGL 191, **and** two units selected from the following courses: ENGL 192, ENGL 193 or ENGL 194 for a total of 4 units.

Business Administration

For the following Associate in Science degrees in Business Administration, students must complete the core courses plus those listed for each degree.

Business Administration – Accounting
Business Administration – General Business
Business Administration – Management
Business Administration – Real Estate

Required Core Courses:

ACCT 101	Basic Accounting I **OR**	3
ACCT 2	Introduction to Financial Accounting	
BUAD 6	Business Law	3
BUAD 10	Introduction to Business	3
BUAD 15	Business and Society	3
BUAD 45	Human Relations on the Job	3
BUAD 66	Business Communications	3
BUAD 106	Business Mathematics	3
CIS 1	Computer Literacy Workshop	3

In addition, students must satisfy all of the regular Associate in Science degree requirements. For a complete description of those requirements, please refer to the "Associate in Science" section of this catalog.

Business Administration - Accounting Concentration

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:

Recommended Course Sequence:

First Semester (Fall)

ACCT 101√	Basic Accounting-I **OR**	3
ACCT 2	Introduction to Financial Accounting	
BUAD 10√	Introduction to Business	3
CIS 1√	Computer Literacy Workshop	3
OAS 51	Keyboarding I-Beginning Typing	3
	General Education	3

Second Semester (Spring)

ACCT 102	Basic Accounting-II **OR**	3
ACCT 4	Introduction to Managerial Accounting	
ACCT 103	PC Accounting	2
BUAD 45√	Human Relations on the Job	3
BUAD 66√	Business Communications	3
BUAD 106√	Business Math	3
OAS 64	Computerized Ten-Key	0.5

Third Semester (Fall)

ACCT 194	Income Tax	3
BUAD 6√	Business Law	3
CIS 20	Access for Windows-I **OR**	1
CIS 23	Introduction to Database Management	3
CIS*	Any spreadsheet	1
	General Education	6

Fourth Semester (Spring)

ACCT 104	Payroll Accounting	2
BUAD 15√	Business and Society	3
	General Education	3
	Electives	8.5

√ Required Business CORE Course

Associate in Science Degree Requirements	
Major	**39.5–41.5**
General Education	**12**
Electives	**8.5**
TOTAL	**60–62**

Business Administration – Entrepreneurship Certificate

REQUIREMENTS FOR CERTIFICATE:
Recommended Course Sequence:

ACCT 101	Basic Accounting I	3
BUAD 10	Introduction to Business	3
BUAD 40	Entrepreneurship and Small Business Operations	3
BUAD 42	Financing a Small Business	3
BUAD 82	Managing Organization Change	.5
BUAD 85	Customer Service in the Workplace	.5
BUAD 86	Decision Making and Problem Solving	.5
BUAD 90	Values and Ethics	.5
MKTG 70	Sales	3
TOTAL UNITS FOR CERTIFICATE:		17

Business Administration – General Business Concentration

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:
Recommended Course Sequence:
First Semester (Fall)

ACCT 101√ ACCT 2	Basic Accounting I OR Introduction to Financial Accounting	3
BUAD 10√	Introduction to Business	3
CIS 1√	Computer Literacy Workshop	3
	General Education	6

Second Semester (Spring)

BUAD 45√	Human Relations on the Job	3
BUAD 66√	Business Communications	3
BUAD 106√	Business Mathematics	3
REAL 30	Real Estate Principles	3
	General Education	3

Third Semester (Fall)

BUAD 6√	Business Law	3
BUAD 91 CIS 4	Principles of Management **OR** Business Data Communications	3
Required Major Electives: Any BUAD, MKTG, LEGL, REAL, CIS, ACCT or OAS		6
	General Education	3

Fourth Semester (Spring)

BUAD 15√	Business and Society	3
Required Major Electives: Any BUAD, MKTG, LEGL, REAL, CIS, ACCT or OAS		*3*

Select at least one unit from the following list of courses:

ACCT 102	Basic Accounting II	3
ACCT 2	Introduction to Financial Accounting	3
BUAD 8	Business Law	3
BUAD 41	Supervision and Leadership	3
BUAD 46	Fundamentals of Nonprofit Management	1
BUAD 47	Fundraising Techniques and Planning	1
BUAD 48	Grant Funding: Finding the Right Source	1
BUAD 49	Nonprofit Financial Management	.5
BUAD 50	Marketing and Public Relations for Nonprofits	1
BUAD 51	Boards of Directors in Nonprofit Organizations	.5
BUAD 52	Staff & Volunteer management in Nonprofit Orgs	1
BUAD 53	Accountability Requirements for Nonprofit Organizations	.5
BUAD 54	Nonprofit Policy, Advocacy and Community Building	.5
BUAD 71	Intro. to e-Commerce	1
BUAD 72	e-Commerce Marketing	1
MKTG 70	Sales	3
MKTG 74	Principles of Marketing	3
OAS 51	Keyboarding I-Beginning Typing	3

Any Electives (Suggested Electives: BUAD 73, MKTG 76) 6-8

√ Required Business CORE Course

Associate in Science Degree Requirements	
Major	**40-42**
General Education	**12**
Electives	**6-8**
TOTAL	**60**

Business Administration – Management Concentration

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:
Recommended Course Sequence:

First Semester (Fall)		
ACCT 101√	Basic Accounting I OR ACCT 2 Intro to Financial Acctg.	3
BUAD 10√	Introduction to Business	3
BUAD 106√	Business Math	3
CIS 1√	Computer Literacy Workshop	3
	General Education	3
Second Semester (Spring)		
BUAD 66√	Business Communications	3
BUAD 45√	Human Relations on the Job	3
	General Education	6
Third Semester (Fall)		
BUAD 6√	Business Law	3
BUAD 41	Supervision and Leadership	3
BUAD 91	Principles of Management	3
CIS/OAS*	Computer Applications	1-3
	Any Electives (Suggested electives BUAD 73, MKTG 76)	6
Fourth Semester (Spring)		
BUAD 8	Business Law	3
BUAD 15√	Business and Society	3
BUAD 71	Intro to e-Commerce **OR**	1
BUAD 72	e-Commerce Marketing	
CIS/OAS*	Computer Applications	1-3
MKTG 70	Sales	3
MKTG 74	Principles of Marketing	3
	General Education	3

*A total of 3 units is required √ Required Business CORE Courses

Associate in Science Degree Requirements	
Major	**43**
General Education	**12**
Electives	**6**
TOTAL	**61**

Business Administration - Real Estate Concentration

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:
Recommended Course Sequence:

First Semester (Fall)		
BUAD 10√	Introduction to Business	3
BUAD 45√	Human Relations on the Job	3
BUAD 66√	Business Communications	3
BUAD 106√	Business Mathematics	3
REAL 30	Real Estate Principles	3
Second Semester (Spring)		
ACCT 101√	Basic Accounting-I** **OR**	3
ACCT 2	Financial Accounting**	
CIS 1√	Computer Literacy Workshop	3
REAL 34	Real Estate Finance	3
	General Education	6

** Only one of these classes will apply toward unit requirements for the real estate broker's license.

Third Semester (Fall)		
BUAD 6√	Business Law	3
REAL 32	Real Estate Appraisal	3
REAL 33	Legal Aspects of Real Estate	3
	General Education	6
Fourth Semester (Spring)		
BUAD 15√	Business and Society	3
MKTG 70	Sales	3
REAL 31	Real Estate Practice	3
	Any Electives	6

√ Required Business CORE Course

Associate in Science Degree Requirements	
Major	**42**
General Education	**12**
Electives	**6**
TOTAL	**60**

Communication Studies

REQUIREMENTS FOR ASSOCIATE IN ARTS DEGREE:
Students must complete the "CORE" courses listed below for their major. In addition, students must fulfill the 33-39-unit general education pattern for CSU or IGETC

CORE COURSES:		***# of units***
HUM 4	Humanities through the Film OR THTR 12 Acting for Stage	3
HUM 70	Exploring Contemporary Television	3
CMST 10	Interpersonal Communication	3
CMST 20	Intercultural Communication	3
CMST 30	Oral Interpretation	3
CMST 40	Argumentation and Debate	3
CMST 54	Small Group Communication	3
CMST 60	Public Speaking	3

Recommended Course Sequence:

First Semester (Fall)

CMST 10	Interpersonal Communication	3
CMST 60	Public Speaking	3

Second Semester (Spring)

CMST 30	Oral Interpretation	3
CMST 54	Small Group Communication	3

Third Semester (Fall)

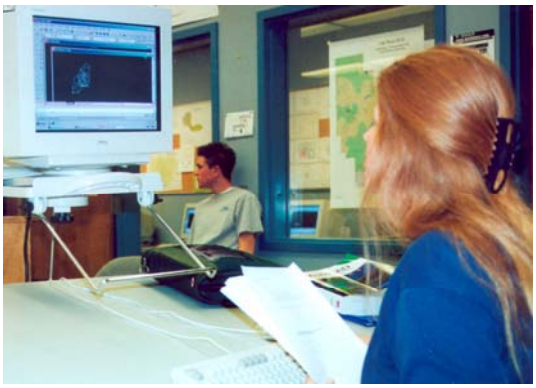
HUM 4	Humanities through the Film **OR**	3
THTR 12	Acting for the Stage I	
CMST 40	Argumentation and Debate	3

Fourth Semester (Spring)

HUM 70	Exploring Contemporary Television	3
CMST 20	Intercultural Communication	3

Associate in Arts Degree Requirements	
Major	**24**
General Education	**33-39**
Electives	**0-3**
TOTAL	**60**

Computer Aided Drafting (CAD) Technology



This curriculum is designed to prepare the individual for employment as a Drafter with potential for more rapid advancement into design and other areas of specializat
consider a

Students participating in this program should contact the Division Office / Engineering Coordinator (530-242-7754), or Counselor for pertinent information.

REQUIRE
Recomme
Students r r in addition to 15 units of general education for the Associate in Science degree requirements and 5 general elective units. For a complete description of those requirements, please refer to the "Associate in Science" section of this catalog.

Recommended Course Sequence:

First Semester (Fall)

CIS 1	Computer Literacy Workshop	3
ENGR 2	Career Planning for Engineering and Engineering Tech.	1
ENGR 22	Engineering Graphics	2
ENGR 29	Computer-Aided Drafting	2
MATH 102*►	Intermediate Algebra	4
	General Education	3

*Can be used to fulfill General Education requirements.
►This course may be waived if student can demonstrate appropriate score on the Math Placement Exam or other multiple measures.

Second Semester (Spring)

ENGR 20	Residential Design	2
ENGR 24	Descriptive Geometry	2
ENGR 30	Intermediate Computer-Aided Drafting	2
MATH 10*	Plane Trigonometry	3
	Major or General Electives	3
	General Education	3

Third Semester (Fall)

ENGR 1A	Measurements and Plane Surveying	3
ENGR 21	Residential Design and Architectural Drawing	3
ENGR 27	Map and Computer-Aided Drafting	3
	Major or General Electives	3
	General Education	3

Fourth Semester (Spring)

ENGR 31	Architectural Detailing	2
ENGR 32	Adv. Civil Design Applications for CAD	3
ENGR 33	Solid Modeling Computer-Aided Drafting	2
	Major or General Electives	2
	General Education	6

Required Major Elective Courses: Choose at least three (3) units from the following:

CIS 10	Excel for Windows-I	1
CONS 52	Residential Estimating	3
CONS 178	Building Codes and Standards	3
ENGR 1B	Plane Surveying (S)	3
ENGR 25	Structural Drafting (I)	3
ENGR 26	Industrial Drafting (I)	3
ENGR 64	Engineering Materials Testing (I)	3
ENGR 94	Engineering Worksite Learning	1-4
ENGR 97	Special Topics (I)	.5-2
ENGR 98	Special Lab (I)	.5-2
AGNR 83	Introduction to Global Positioning Systems (GPS) (F/S)	1

Associate in Science Degree Requirements	
Major	**40**
General Education	**15**
General Electives	**5**
TOTAL	**60**

Computer Aided Drafting Technology certificate continued on next page

Computer Aided Drafting Technology continued:

REQUIREMENTS FOR CERTIFICATE:

This certificate is designed to provide employable knowledge and skills with the level of general education reduced from what is required for an Associate in Science degree. Students must co

Students participating in this certificate should contact the Division Office/Engineering Coordinator (530-242-7754), or Couunselor for pertinent information.

Recommended Course Sequence:

First Semester (Fall)

CIS 1	Computer Literacy Works	
ENGR 2	Career Planning for Engineering and Engineering Tech.	1
ENGR 22	Engineering Graphics	2
ENGR 29	Computer-Aided Drafting	2
MATH 102*►	Intermediate Algebra	4

*Can be used to fulfill General Education requirements.
►This course may be waived if student can demonstrate appropriate score on the Math Placement Exam or other multiple measures.

Second Semester (Spring)

ENGR 20	Residential Design	2
ENGR 24	Descriptive Geometry	2
ENGR 30	Intermediate Computer-Aided Drafting	2
MATH 10*	Plane Trigonometry	3

Third Semester (Fall)

ENGR 1A	Measurements and Plane Surveying	3
ENGR 21	Residential Design and Architectural Drawing	3
ENGR 27	Map and Computer-Aided Drafting	3

Fourth Semester (Spring)

ENGR 31	Architectural Detailing	2
ENGR 32	Adv. Civil Design Applications for CAD	3
ENGR 33	Solid Modeling Computer-Aided Drafting	2
	Required Major Electives	3

Required Major Elective Courses: Choose at least three (3) units from the following:

CIS 10	Excel for Windows-1	1
CONS 52	Residential Estimating	3
CONS 178	Building Codes and Standards	3
ENGR 1B	Plane Surveying (S)	3
ENGR 25	Structural Drafting (I)	3
ENGR 26	Industrial Drafting (I)	3
ENGR 64	Engineering Materials Testing (I)	3
ENGR 94	Engineering Worksite Learning (F/S)	1-4
ENGR 97	Special Topics (I)	.5-2
ENGR 98	Special Lab (I)	.5-2
AGNR 83	Introduction to Global Positioning Systems (GPS) (F/S)	1
	TOTAL UNITS FOR CERTIFICATE	**40**

Computer and Information Systems- Business Information Systems Concentration

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:

Students must complete the "CORE" courses listed below in addition to 21 units of general education for the Associate in Science degree requirements. For a complete description of those requirements, please refer to the "Associate in Science" section of this catalog.

Recommended Course Sequence:

First Semester (Fall)

ACCT 101	Basic Accounting 1 **or**	
ACCT 2	Introduction to Financial Accounting	3
BUAD 10	Introduction to Business (fulfills GE requirement)	3
CIS 2	Introduction to Computer Science	4
CIS 70	Windows 1	1
OAS	Word Processing	1
	General Education	3

Second Semester (Spring)

BUAD 6	Business Law	3
BUAD 71	Introduction to e-Commerce	1
BUAD 106*	Business Mathematics	3
CIS	Spreadsheet	1
CIS 60	Visual Basic Programming **or**	
CIS 61	C++ Language Programming **or**	
CIS 62	Java Programming **or**	
CIS 63	Assembler Language Programming	3-4
CIS 81	Web Design (Front Page I)	1
	General Education	3

*(Or other math course that meets general education requirement)

Third Semester (Fall)

BUAD 15	Business and Society	3
CIS 20	Access for Windows-I **OR**	1
CIS 23	Introduction to Database Management	3
CIS 4	Business Data Communications	3
CIS 31	CISCO CCNA 1	3
	Required Major Elective (see below)	3
	General Education	3

Fourth Semester (Spring)

BUAD 45	Human Relations on the Job	3
BUAD 66	Business Communications	3
CIS 3	Systems Analysis	3
	Required Major Electives (see below)	4
	General Education	3

Required Major Electives: Choose seven (7) units from the following:

BUAD 72	e-Commerce Marketing	1
BUAD 73	Web Design/e-Commerce	1
CIS 5	Help Desk – Level 1	1
CIS 11	Excel for Windows II	1
CIS 12	Excel for Windows III	1
CIS 21	Access for Windows II	1
CIS 22	Access for Windows III	1
CIS 32	CISCO CCNA 2	3
CIS 50	Install, Configure, and Administer MS Windows XP Pro	1
CIS	Second Programming Language (CIS 60, CIS 61, CIS 62, or CIS 63)	3-4
CIS 71	Windows II	1
CIS 72	Fundamentals of Unix	3
CIS 86	HTML	3
CIS 90	A+ Certification Preparation/Cisco IT Essentials I	4
CIS 92	Introduction to Computer Security – Security +	3
CIS 94	Computer Information Systems Worksite Learning	1

Associate in Science Degree Requirements	
Major	**50-53**
General Education	**12**
TOTAL	**62-65**

Computer and Information Systems
Computer Networking Concentration-CCNA Option

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:
Students must complete the "CORE" courses listed below in addition to 21 units of general education for the Associate in Science degree requirements. For a complete description of those requirements, please refer to the "Associate in Science" section of this catalog.

Recommended Course Sequence:

First Semester (Fall)

CIS 2	Introduction to Computer Science	4
CIS 31	Cisco CCNA 1	3
CIS 32	Cisco CCNA 2	3
CIS 90	A+ Certification Preparation/Cisco IT Essentials I	4

Second Semester (Spring)

BUAD 45	Human Relations on the Job	3
CIS 33	Cisco CCNA 3	3
CIS 34	Cisco CCNA 4	3
ELEC 138	Fundamentals of Electronics	3
	General Education	3

Third Semester (Fall)

CIS 50	Install, Configure and Administer MS Windows XP Pro	1
CIS 51	Manage/Maintain MS Windows Server 2003 Environment	1
CIS 52	Manage/Maintain Windows 2003 Network Infrastructure	1
CIS 81	Web Design (Front Page I)	1
	Required Major Electives (see below)	3
	General Education	9

Fourth Semester (Spring)

CIS 53	Plan and Maintain Windows 2003 Network Infrastructure	1
CIS 54	Plan, Implement, Maintain Windows 2003 AD Infrastructure	1
CIS 55	Designing Windows Server 2003 AD & Network Infrastructure	1
	Required Major Electives (see below)	5
	General Education	6

Summer

CIS 56	Designing Security for Windows Server 2003 Network	1

Required Major Electives: Choose eight (8) units from the following:

BUAD 10	Introduction to Business (fulfills GE Requirement)	3
CIS 5	Help Desk – Level 1	1
CIS 23	Concepts of Database Management	3
CIS 39	Cisco Networking – Fundamentals of Network Security	3
CIS 60	Visual Basic OR CIS 61 C++ OR CIS 62 Java OR	
CIS 63	Assembler Language Programming	3-4
CIS 72	Fundamentals of Unix	3
CIS 82	Web Design (Front Page II)	3
CIS 86	HTML	3
CIS 92	Introduction to Computer Security – Security +	3
CIS 94	Computer Information Systems Worksite Learning	1

Associate in Science Degree Requirements	
Major	**42**
General Education	**18**
TOTAL	**60**

Computer and Information Systems/CCNA Certificate on next page

Computer and Information Systems/CCNA Program (continued):

REQUIREMENTS FOR CERTIFICATE

Students who have already completed the CCNA Certification or who have successfully completed the Cisco Network Academy CCNA courses may substitute the CCNP course work for the CCNA course work in this Certificate program. This would consist of taking the CIS 35 through CIS 38 series rather than the CIS 31 through CIS 34 series of classes. The courses are listed as follows:

First Semester (Fall)		
CIS 2	Introduction to Computer Science	4
CIS 31	Cisco CCNA 1	3
CIS 32	Cisco CCNA 2	3
CIS 90	A+ Certification Preparation/Cisco IT Essentials I	4
Second Semester (Spring)		
CIS 33	Cisco CCNA 3	3
CIS 34	Cisco CCNA 4	3
CIS 81	Web Design (Front Page I)	1
ELEC 138	Fundamentals of Electronics	3
Third Semester (Fall)		
CIS 50	Install, Configure and Administer MS Windows XP Pro	1
CIS 51	Manage and Maintain a MS Windows Server 2003 Environment	1
CIS 52	Manage and Maintain Windows 2003 Network Infrastructure	1
Fourth Semester (Spring)		
CIS 53	Plan and Maintain Windows 2003 Network Infrastructure	1
CIS 54	Plan, Implement & Maintain Windows 2003 AD Network Infrast.	1
CIS 55	Designing a Windows Server 2003 AD and Network Infrastr.	1
Summer		
CIS 56	Designing Security for a MS Windows 2003 Network Infrastruct.	1
	TOTAL UNITS FOR CERTIFICATE	**31**

Computer and Information Systems - Computer Networking Concentration-CCNP Option

Prior to enrollment in the first semester of the CCNP Option (A.S. Degree or Certificate), students must have completed CIS 34 with a grade of "C" or higher, current CCNA certification, or the equivalent as determined by the multiple measures process.

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:
Students must complete the "CORE" courses listed below in addition to 21 units of general education for the Associate in Science degree requirements. For a complete description of those requirements, please refer to the "Associate in Science" section of this catalog.

Recommended Course Sequence:

First Semester (Fall)

CIS 2	Introduction to Computer Science	4
CIS 35	Cisco CCNP 1	3
CIS 90	A+ Certification Preparation/Cisco IT Essentials I	4
ELEC 138	Fundamentals of Electronics	3

Second Semester (Spring)

BUAD 45	Human Relations on the Job	3
CIS 36	Cisco CCNP 2	3
CIS 81	Web Design (Front Page I)	1
	General Education	6

Third Semester (Fall)

CIS 37	Cisco CCNP 3	3
CIS 50	Install, Configure, and Administer MS Windows XP Pro	1
CIS 51	Manage/Maintain MS Windows Server 2003 Environment	1
CIS 52	Manage/Maintain Windows 2003 Network Infrastructure	1
	Required Major Electives (see below)	4
	General Education	6

Fourth Semester (Spring)

CIS 38	Cisco CCNP 4	3
CIS 53	Plan and Maintain Windows 2003 Network Infrastructure	1
CIS 54	Plan, Implement, Maintain Windows 2003 AD Infrastructure	1
CIS 55	Designing Windows Server 2003 AD and Network Infrastructure	1
	Required Major Electives (see below)	4
	General Education	6

Summer

CIS 56	Designing Security for Windows Server 2003 Network	1

Required Major Elective (Choose at least 8 units from the following):

BUAD 10	Introduction to Business (fulfills G.E. requirement)	3
CIS 5	Help Desk – Level 1	1
CIS 23	Concepts of Database Management	3
CIS 39	Cisco Networking – Fundamentals of Network Security	3
CIS 60	Visual Basic OR CIS 61 C++ OR CIS 62 Java OR	
CIS 63	Assembler Language Programming	3-4
CIS 72	Fundamentals of Unix	3
CIS 82	Web Design (Front Page II)	1
CIS 86	HTML	3
CIS 92	Introduction to Computer Security – Security +	3
CIS 94	Computer Information Systems Worksite Learning	1

Associate in Science Degree Requirements	
Major	**42**
General Education	**18**
TOTAL	**60**

Certificate information listed on next page

Computer and Information Systems/CCNP Option continued:

REQUIREMENTS FOR CERTIFICATE

First Semester (Fall)		
CIS 2	Introduction to Computer Science	4
CIS 35	Cisco CCNP 1	3
CIS 50	Install, Configure, and Administer MS Windows XP Pro	1
CIS 51	Manage/Maintain MS Windows Server 2003 Environment	1
CIS 52	Manage/Maintain Windows 2003 Network Infrastructure	1
Second Semester (Spring)		
CIS 36	Cisco CCNP 2	3
CIS 53	Plan and Maintain Windows 2003 Network Infrastructure	1
CIS 54	Plan, Implement, Maintain Windows 2003 AD Infrastructure	1
CIS 55	Designing Windows Server 2003 AD and Network Infrastructure	1
CIS 81	Web Design (Front Page I)	1
CIS 90	A+ Certification Preparation/Cisco IT Essentials I	4
Summer		
CIS 56	Designing Security for Windows Server 2003 Network	1
Third Semester (Fall)		
CIS 37	Cisco CCNP 3	3
ELEC 138	Fundamentals of Electronics	3
Fourth Semester (Spring)		
CIS 38	Cisco CCNP 4	3
	TOTAL UNITS FOR CERTIFICATE	**31**

Computer and Information Systems – Web Design

This program is designed to be an introduction to the basics of designing and building simple Web pages. The curriculum assists students, small business owners, office and IT workers, and hobbyists to design and maintain a presence on the Web.

REQUIREMENTS FOR CERTIFICATE:

Recommended Course Sequence		
CIS 80	Internet Basics	1
CIS 73	Photoshop	1
CIS 86	HTML	3
CIS 81	Web Design (FrontPage 1)	1
BUAD 71	Introduction to E-Commerce	1
ART 80A	Graphic Design	2
CIS 83	Web Design Using Dream Weaver	2
CIS 64	Web Programming Using Java/PHP/Flash	3
CIS 79	Advanced Web Design Using Dreamweaver and Adobe	2
	TOTAL CORE UNITS	**16**

Computer Maintenance

The Computer Maintenance Certificate Program provides the exposure and training necessary to maintain and troubleshoot common micro-computer systems to the board level. This program provides hands-on training in basic electronics, DOS installation and operation, PC repair and computer management.

REQUIREMENTS FOR CERTIFICATE:

Students must complete the courses listed below:

CIS 2	Introduction to Computer Science	4
CIS 31	Cisco CCNA 1	3
CIS 90	A+ Certification Preparation/Cisco IT Essentials I	4
ELEC 138	Fundamentals of Electronics	3
	TOTAL COMPUTER EMPHASIS UNITS	**14**

Construction Technology

This curriculum prepares students for entry-level employment in the carpentry trade. Award of specific apprenticeship credit will depend on the employer, local union regulations, aptitude of student as well as curriculum completed. Under normal circumstances, credit for partial fulfillment of apprenticeship requirements can be attained.

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:

Recommended Course Sequence:

First Semester (Fall)

CONS 53	Materials of Construction	3
CONS 71	Woodworking	3
CONS 151	Carpentry Practices I	6
INDE 1	Career Planning for Industrial Technology	1
MATH 100*	Technical Applications of Mathematics	3

Second Semester (Spring)

CONS 72	Cabinetmaking	3
CONS 152	Carpentry Practices II	6
CONS 155	Residential Electrical	3
ENGL 190*	Reading and Writing II **(see below for alternative)	4

Third Semester (Fall)

CONS 154	Residential Plumbing	3
CONS 178	Building Codes and Standards	3
ENGR 119	Blueprint and Specification Reading (Architectural)	2
WELD 70	Beginning Welding	3
	General Education	3

Fourth Semester (Spring)

CONS 52	Residential Estimating	3
	General Education	12

Suggested Electives:

BUAD 10*	Introduction to Business	3
CONS 73	Furniture & Cabinet Finishing	3
CONS 74	Trim & Detail Finishing	3
CONS 94	Construction Tech. Worksite Learning	1-4
CONS 150	Introduction to Residential Construction	3
OAS 51	Keyboarding I-Beginning Typing	3

Associate in Science Degree Requirements	
Major	**46**
General Education	**15**
TOTAL	**61**

*Can be used to fulfill the General Education requirement.
The General Education requirement includes English Composition. Students may choose one of the following alternatives: ENGL 190 **OR a combination of ENGL 191, **and** two units selected from the following courses: ENGL 192, ENGL 193 or ENGL 194 for a total of 4 units.

REQUIREMENTS FOR CONSTRUCTION TECHNOLOGY CERTIFICATE:

Recommended Course Sequence:

First Semester (Fall)

CONS 53	Materials of Construction	3
CONS 71	Woodworking	3
CONS 151	Carpentry Practices I	6
INDE 1	Career Planning for Industrial Technology	1
MATH 100	Technical Applications of Mathematics	3

Second Semester (Spring)

CONS 72	Cabinetmaking	3
CONS 152	Carpentry Practices II	6
CONS 155	Residential Electrical	3
ENGL 190*	Reading and Writing II **(see below for alternative)	4

Third Semester (Fall)

CONS 154	Residential Plumbing	3
CONS 178	Building Codes and Standards	3
ENGR 119	Blueprint and Specification Reading (Architectural)	2
WELD 70	Beginning Welding	3

Fourth Semester (Spring)

CONS 52	Residential Estimating	3
	TOTAL UNITS FOR CERTIFICATE	**46**

*Can be used to fulfill General Education requirements.
Students may choose one of the following alternatives: ENGL 190 **OR a combination of ENGL 191, **and** two units selected from the following courses: ENGL 192, ENGL 193 or ENGL 194 for a total of 4 units.

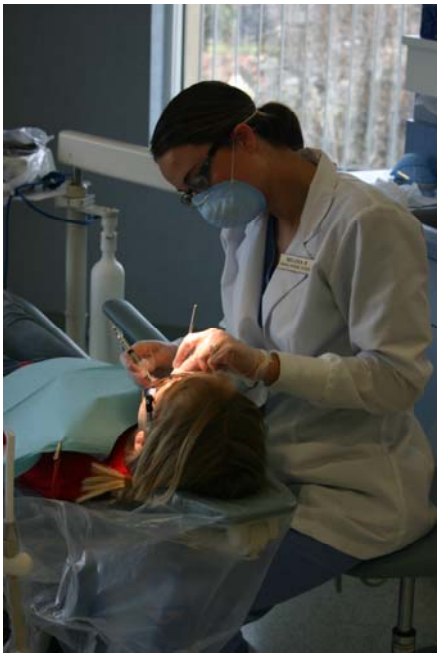
Customer Service Academy Certificate

The Customer Service Academy Certificate will be awarded after all of the following courses have been completed:

REQUIREMENTS FOR CERTIFICATE:

BUAD 81	Stress Management in the Workplace	0.5
BUAD 82	Managing Organizational Change	0.5
BUAD 83	Conflict Resolution	0.5
BUAD 84	Attitude in the Workplace	0.5
BUAD 85	Customer Service in the Workplace	0.5
BUAD 86	Decision Making and Problem Solving	0.5
BUAD 87	Team Building	0.5
BUAD 88	Communicating with People	0.5
BUAD 89	Time Management	0.5
BUAD 90	Values and Ethics	0.5
	TOTAL UNITS FOR CERTIFICATE	**5.0**

Dental Hygiene



The Dental Hygiene Program is designed to train students to work as dental hygienists who have specific knowledge of the dental hygiene profession, a sophisticated level of thinking ability, and the positive character traits (i.e., responsibility, discipline, and initiative) necessary to succeed at any level in the workplace.

All courses in the program will employ an integrated teaching strategy that will include development of critical skills, competence in oral and written English communication, and competence in applied math for problem solving. In addition, all courses will provide a broad understanding of "all aspects of the field (industry)." The program will be articulated with various transfer institutions so that those students who choose to transfer for further study may do so.

REQUIREMENTS FOR ENROLLMENT INTO THE PROGRAM:

1. Students must have a high school diploma or its equivalent
2. Completion of the Humanities requirement and Mathematics competency requirement is necessary for graduation and strongly recommended prior to entering the program.

PREREQUISITE COURSES:

ANAT 1	Anatomy	5
PHY 1	Physiology (with Lab)	5
MICR 1	Microbiology	5
ENGL 1A	College Composition	4
CHEM 2A	Introduction to Chemistry	5
CHEM 2B	Introduction to Organic and Biochemistry	5
SOC 1	Introduction to Sociology	3
PSYC 1A	General Psychology	3
CMST 60	Public Speaking ***or*** CMST 10 Interpersonal Communication	3
FSS 25	Nutrition	3
	TOTAL PREREQUISITE UNITS	**41**

Final selection of qualified applicants is competitive. Please contact the Center for Human Development for information regarding the selection criteria used to evaluate qualified applicants

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:

DNTL 10	Oral Biology	3
DNTL 11	Oral Radiology	3
DNTL 12	Head and Neck Anatomy	2
DNTL 13	Dental Health Education/Seminar	2
DNTL 14	Introduction to Clinic	4
DNTL 20	Local Anesthesia and Nitrous Oxide	2
DNTL 21	General and Oral Pathology	4
DNTL 23	Patient Management and Geriatrics	2
DNTL 24	Clinical Practice I	4
DNTL 25	Clinic I Seminar	2
DNTL 26	Nutrition in Dentistry	1
DNTL 30	Periodontology I	3
DNTL 31	Pharmacology	2
DNTL 32	Dental Materials	2
DNTL 33	Advanced Clinical Topics	2
DNTL 34	Clinical Practice II	4
DNTL 35	Clinic II Seminar	1
DNTL 40	Periodontics II	1
DNTL 41	Practice and Financial Management	1
DNTL 42	Clinic III Seminar	2
DNTL 43	Clinical Practice III	4
DNTL 44	Community Oral Health	3
DNTL 45	Ethics and Jurisprudence	2
	TOTAL UNITS FOR MAJOR:	**56**

Diesel Technology

This curriculum prepares the student for entry into the mechanic trade related to heavy equipment and diesel engines. Award of apprenticeship credit for completion of the program will depend on the employer, local union regulations, aptitude of student, as well as the curriculum completed. The Diesel Technology major requires technical courses to satisfy the minimum requirements for the major. Students are encouraged to take as many technical courses and related electives as their program will permit. When necessary, auto mechanic courses and diesel courses may be interchanged to satisfy major requirements.

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:

Recommended Course Sequence: (for students starting Fall semester)

First Semester (Fall)		
DIES 48	Hydraulics	3.5
DIES 160	Diesel Engine Electronic Control	4
DIES 162	Heavy Duty Power Train	4
DIES 164	Diesel Performance Analysis	4
INDE 1	Career Planning for Industrial Tech.	1
Second Semester (Spring)		
DIES 49	Advanced Hydraulics	3
DIES 94	Diesel Technology Worksite Learning	1-4
DIES 161	Diesel Technology Field Training	2
DIES 166	Diesel Engines	6
DIES 170	Heavy Duty Braking Systems	4
Third Semester (Fall)		
ENGL 190*	Reading and Writing II **(see below for alternatives)	4
MATH 100*	Technical Applications of Mathematics	3
WELD 70	Beginning Welding	3
	General Education	3
Fourth Semester (Spring)		
WELD	Any Advanced Welding Class	3
	General Education	12

Associate in Science Degree Requirements	
Major	**45.5-48.5**
General Education	**15**
TOTAL	**60.5-63.5**

*Can be used to fulfill General Education requirements.
The General Educ. requirement includes English Composition. Students may choose one of the following alternatives: ENGL 190 **OR a combination of ENGL 191, **and** two units selected from the following courses: ENGL 192, ENGL 193 or ENGL 194 for a total of 4 units.

Recommended Course Sequence: (for students starting Spring semester)

First Semester (Spring)		
DIES 48	Hydraulics	3.5
DIES 170	Heavy Duty Braking Systems	4
ENGL 190*	Reading and Writing II **(see below for alternatives)	4
INDE 1	Career Planning for Industrial Technology	1
MATH 100*	Technical Applications of Mathematics	3
WELD 70	Beginning Welding	3
Second Semester (Fall)		
DIES 49	Advanced Hydraulics	3
DIES 160	Diesel Engine Electronic Control	4
DIES 162	Heavy Duty Power Train	4
DIES 164	Diesel Performance Analysis	4
	General Education	3
Third Semester (Spring)		
DIES 94	Worksite Learning For Diesel Technology	1-4
DIES 161	Diesel Technology Field Training	2
DIES 166	Diesel Engines	6
WELD	Any Advanced Welding Class	3
	General Education	3
Fourth Semester (Fall)		
	General Education	9

Associate in Science Degree Requirements	
Major	**45.5-48.5**
General Education	**15**
TOTAL	**60.5-63.5**

*Can be used to fulfill General Education requirements.
The General Educ. requirement includes English Composition. Students may choose one of the following alternatives: ENGL 190 **OR a combination of ENGL 191, **and** two units selected from the following courses: ENGL 192, ENGL 193 or ENGL 194 for a total of 4 units.

Certificate listed on next page

Diesel Technology continued:

REQUIREMENTS FOR DIESEL TECHNOLOGY CERTIFICATE:

Recommended Course Sequence:

First Semester (Fall)		
DIES 48	Hydraulics (F/S)	3.5
DIES 162	Heavy Duty Power Train (F)	4
DIES 164	Diesel Performance Analysis (F)	4
INDE 1	Career Planning for Industrial Tech. (F/S)	1
Second Semester (Spring)		
DIES 49	Advanced Hydraulics	3
DIES 94	Worksite Learning For Diesel Technology	1-4
DIES 160	Diesel Engine Electronic Control	4
DIES 161*	Diesel Technology Field Training (S)	2
DIES 166*	Diesel Engines (S)	6
DIES 170	Heavy Duty Braking Systems (S)	4
Third Semester (Fall)		
ENGL 190	Reading and Writing II ** (see below for alternatives)	4
MATH 100	Technical Applications of Mathematics	3
WELD 70	Beginning Welding	3
WELD	Any Advanced Welding Class	3
	TOTAL UNITS FOR CERTIFICATE	**45.5-48.5**

Students may choose one of the following alternatives: ENGL 190 **OR a combination of ENGL 191, **and** two units selected from the following courses: ENGL 192, ENGL 193 or ENGL 194 for a total of 4 units.

Note: This sequence of courses is designed for students who enroll in the fall semester. For students who enroll during the spring semester, please check prerequisites, as it may take a little longer to complete the certificate requirements.

*** = Check Prerequisites (F) = Fall Class Only (S) = Spring Class Only**

Dietary Service Supervisor Certificate

The Dietary Service Supervisor Certificate will be awarded after all of the following courses have been completed:

REQUIREMENTS FOR CERTIFICATE:

CULA 50	Sanitation and Safety	2
DSS 10	Food Production Management	3
DSS 63	Dietary Service Supervisor Operations and Management	3
DSS 94	Dietary Service Supervisor Worksite Learning	3
FSS 25	Nutrition	3
FSS 27	Nutrition and Disease	2
	TOTAL UNITS FOR CERTIFICATE	**16**

Early Childhood Education

The Early Childhood Education Program prepares students to become teachers and directors in programs providing care and learning opportunities for young children. The college courses focus on training for careers in preschools, Head Start, childcare, infant-toddler and school age care, and family childcare. Programs for young children require different qualifications for teachers and child care providers. The A.S. Degree in Early Childhood Education at Shasta College meets course work qualifications for the Child Development Teacher Permit Level and Title 22 staff qualifications for a teacher and director. Additional specified experience with children is required.

Follow the Suggested Sequence of Courses listed below along with the Shasta College catalog for general education and graduation requirements. Particular attention should be given to suggested course advisories, prerequisites, and courses that are offered only during the Fall (F) or Spring (S) terms. An asterisk (*) denotes a course has a suggested prerequisite course requirement or advisory.

There are 44 required Early Childhood Education units for the Associate Degree. Students need to complete core-required courses (39 units) and an additional 5 units selected from offerings listed after the core courses. The General Education units (16 units) need to be taken in the following five categories – Natural Science, Humanities, English, Math and Speech. All courses applied to the A.S. ECE Degree must be completed with a "C" grade or better.

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:

REQUIRED MAJOR CORE COURSES (Recommended Course Sequence)

First Semester

ECE 1	Human Development (F/S)	3
ECE 4	Introduction to Early Childhood Education (F/S)	1
ECE 20	E.C. Curriculum: Introduction to Curriculum (F/S)	2
ECE 52	Guidance in Adult-Child Relations (S)	3

Second Semester

ECE 2	Child, Family, Community (F/S)	3
ECE 7*	Early Childhood Observation & Assessment (F/S)	3
ECE 11*	Meeting Special Needs of Children (S)	2
ECE 30*	E.C. Curriculum: Physical Development (S)	3

Third Semester

ECE 3*	Early Childhood Program Administration (F)	3
ECE 40*	E.C. Curriculum: Affective Development (F)	3
ECE 50*	E.C. Curriculum: Cognitive Development (S)	3

Fourth Semester

ECE 8*	Teaching Practices for Young Children (F)	5
ECE 15	Health & Safety in Children's Programs (S)	3
ECE 16*	Fundamentals of EC Mentoring & Supervision (S)	2

Additional Early Childhood Education Program Units

Students must select an additional five units from the ECE program courses listed below:

ECE 6	Exploring Family Childcare	3
ECE 10	Early Childhood Learning	3
ECE 12	Infant-Toddler Learning	3
ECE 13	Envir. for Infant/Toddler, Preschool or School age Child Care	2
ECE 14	School Age and Adolescent Development	3
ECE 22	EC Curriculum: Infant/Toddler Care	1
ECE 24	EC Curriculum: School Age Care	1
ECE 26	The Child With Special Needs	3
ECE 27	Teaching Children with Special Needs & Early Intervention Strategies	3
ECE 51	Early Childhood Staffing and Management	3
ECE 152	The Young Child: Movement, Rhythm, and Singing	1
ECE 155	The Young Child: Introduction to the Montessori Method	1

ECE graduates are qualified to work with children ages 0-5. However, it is recommended that students meet the additional 5-unit requirement by selecting and completing one of the following Specializations (Infant/Toddler or School-Age). A Specialization is required for the Master Teacher Level of the Child Development Permit, issued by the California Commission on Teaching Credentialing. Associate and Teacher Levels do not require a Specialization.

Continued on next page

Early Childhood Education continued:

INFANT/TODDLER TEACHING SPECIALIZATION

ECE 13	Envir. for Infant/Toddler, Preschool or School age Child Care	2
ECE 12	Infant-Toddler Learning	3
ECE 22	E.C. Curriculum: Infant/Toddler Care	1

SCHOOL-AGE TEACHING SPECIALIZATION

ECE 13	Envir.for Infant/Toddler, Preschool or School-Age Child Care	2
ECE 14	School-Age and Adolescent Development	3
ECE 24	E.C. Curriculum: School-Age Care	1

SPECIAL NEEDS IN EARLY CHILDHOOD EDUCATION/EARLY INTERVENTION SPECIALIZATION

ECE 26	The Child with Special Needs	3
ECE 27	Teaching Children with Special Needs & Early Intervention Strategies	3

Suggested Electives:

FSS 16	Marriage and Family	3
FSS 25	Nutrition	3
FSS 60	Life Management	3
MUS 1	Music Fundamentals	3
PSYC 41	Cultural/Social Context of Childhood	3
CMST 54	Small Group Communication	3

Associate in Science Degree Requirements	
Required Major Core Courses	**39**
Selected Additional ECE Program Units	**5**
***General Education**	**16**
*(Natural Science, Humanities, English, Math, and Speech)	
TOTAL	**60**

REQUIREMENTS FOR CERTIFICATE:

The Early Childhood Education Certificate offers students initial training to work with young children. After completion of the 16 unit certificate requirements, the student qualifies for employment as an entry-level teacher in private child care settings licensed through the Department of Social Services. The Early Childhood Education Certificate course work also meets the training requirements for the *Child Development Associate Teacher Permit* issued by the California Commission on Teacher Credentialing.

The courses listed below may also be applied to an Early Childhood Education AS Degree (See college counselor and *Recommended Course Sequence* for Associate of Science Degree). Particular attention should be given to suggested course prerequisites and to courses that are offered only during the Fall or Spring terms. Probable time of course offering is indicated by a F (Fall), S (Spring). An asterisk (*) means that there is a prerequisite (condition of enrollment that a student is required to meet in order to demonstrate current readiness for enrollment in that course).

All courses to be applied to the Early Childhood Education Certificate must be completed with a "C" grade or better.

Recommended Course Sequence:

First Semester (Fall)

ECE 1	Human Development (F/S)	3
ECE 4	Intro. to Early Childhood Education (F/S)	1
ECE 20	E.C. Curriculum: Intro. to Curriculum (F/S)	2

Second Semester (Spring)

ECE 2	Child, Family, Community (F/S)	3
ECE 52	Guidance in Adult-Child Relations (S)	3

Select four (4) units from the following courses 4

ECE 7*	Early Childhood Observation and Assessment (F/S)
ECE 11*	Meeting Special Needs of Children (S)
ECE 13	Envir. for Infant/Toddler, Preschool or School-Age Child Care (F)
ECE 30*	E.C. Curriculum: Physical Development (S)
ECE 50*	E.C. Curriculum: Cognitive Development (F)
ECE 40*	E.C. Curriculum: Affective Development (S)

TOTAL UNITS 16

Early Childhood Education - Family Childcare

The Early Childhood Education Family Childcare Certificate offers students initial training for employment as a family childcare provider. After completion of the 16-unit certification program, the student will be prepared to seek a family childcare provider position or family childcare licensure (assuming ability to pass Community Care Licensing [Social Services Dept.] requirements related to physical site).

Follow the suggested sequence of courses listed below along with the Shasta College catalog. Particular attention should be given to course advisories, prerequisites, and courses that are offered only during the Fall (F) or Spring (S) terms. An asterisk (*) denotes a course that has a prerequisite course requirement.

All courses to be applied to the Early Childhood Education Family Childcare Certificate must be completed with a "C" grade or better.

REQUIREMENTS FOR CERTIFICATE:

Recommended Course Sequence:

First Semester (Fall)		
ECE 1	Human Development (F/S)	3
ECE 6	Exploring Family Childcare (F/S)	3
ECE 20	E.C. Curriculum: Intro. to Curriculum (F/S)	2
Second Semester (Spring)		
ECE 2	Child, Family, Community (F/S)	3
ECE 13	Environments for Infant/Toddler, PS, S-A	2
Select three (3) units from the following courses:		3
ECE 11*	Meeting Special Needs of Children – 2 units (S)	
ECE 12	Infant/Toddler Learning – 3 units (F)	
ECE 14	School-Age Learning – 3 units (S)	
ECE 22	EC Curriculum: Infant/Toddler Care – 1 unit (F)	
ECE 24	EC Curriculum: School Age Care – 1 unit (S)	
ECE 30*	EC Curriculum: Physical Development – 3 units (S)	
ECE 40*	EC Curriculum: Affective Development – 3 units (F)	
ECE 50*	EC Curriculum: Cognitive Development – 3 units (S)	
ECE 52	Guidance in Adult-Child Relations – 3 units (S)	
	TOTAL UNITS FOR CERTIFICATE:	**16**

Engineering Technology

This curriculum is d ng
Technician with th er
responsibility in sur

Students participating in this program should contact the Division Office / Engineering Coordinator (530-242-7754), or Counselor for pertinent information.

REQUIREMENTS F
Recommended Co

Students must complete the "CORE" courses listed below with a C or better in addition to 15 units of general education for the Associate in Science degree requirements and 5 general elective units. For a complete description of those requirements, please refer to the "Associate in Science" section of this catalog.

First Semester (Fall)

ENGR 2	Career Planning for Engineering and Engineering Tech.	1
ENGR 22	Engineering Graphics	2
ENGR 29	Computer-Aided Drafting (CAD)	2
MATH 102*►	Intermediate Algebra	4
	Major or General Electives	3
	General Education	3

*Can be used to fulfill General Education requirements
►*This course may be waived if student can demonstrate appropriate score on the Math Placement Exam or other multiple measures.*

Second Semester (Spring)

ENGR 24	Descriptive Geometry	2
ENGR 30	Intermediate Computer-Aided Drafting	2
MATH 10*	Plane Trigonometry	3
	Major or General Electives	5
	General Education	3

Third Semester (Fall)

ENGR 1A	Measurements and Plane Surveying	3
ENGR 37	Statics for Engr. Tech. and Construction Management	3
PSYS 2A*	General College Physics	4
	Major or General Electives	2
	General Education	3

Fourth Semester (Spring)

ENGR 38	Strength of Materials for Engr. Tech/Construction Mgmt.	3
	Major or General Electives	9
	General Education	3

Required Major Electives: Choose at least eleven (11) units from the following:

Architectural Electives		
CONS 52	Residential Estimating	3
CONS 178	Building Codes and Standards	3
ENGR 20	Residential Design – second semester (spring)	2
ENGR 21	Architectural Drawing – third semester (fall)	3
ENGR 31	Architectural Detailing – fourth semester (spring)	2
ENGR 119	Blueprint and Specification Reading (Architectural) – first or third semester (fall)	2
Civil Electives		
ENGR 1B	Plane Surveying – fourth semester (spring)	3
ENGR 27	Map and Computer-Aided Drafting – third semester (fall)	3
ENGR 32	Adv. Civil Design Applications for CAD – fourth semester (spring)	3
Mechanical Electives		
ENGR 33	Solid Modeling Computer-Aided Drafting – fourth semester (spring)	2
ENGR 118	Blueprint and Specification Reading (Mechanical) – first or third semester (fall)	2
Other Electives		
ENGR 25	Structural Drafting (I)	3
ENGR 26	Industrial Drafting (I)	3
ENGR 64	Engineering Materials Testing (I)	3
ENGR 94	Engineering Worksite Learning (F/S)	1-4
ENGR 97	Special Topics (I)	.5-2
ENGR 98	Special Lab (I)	.5-2
AGNR 83	Introduction to Global Positioning Systems (GPS) (F/S)	1

Associate in Science Degree Requirements	
Major	**40**
General Education	**15**
General Electives	**5**
TOTAL	**60**

REQUIREMENTS FOR CERTIFICATE:

This Certificate is designed to provide employable knowle[illegible]at is required for an AS degree. Students must complete the "CORE" cou[illegible]

Students participating in this certificate should contact the Division Office / Engineering Coordinator (530-242-7754), or Counselor for pertinent information.

Recommended Course Sequence:

Students must complete the "CORE" courses lis[illegible]ate in Science degree requirements. For a complete [illegible] Science" section of this catalog.

First Semester (Fall)

ENGR 2	Career Planning for Engineering and Engineering Tech.	1
ENGR 22	Engineering Graphics	2
ENGR 29	Computer-Aided Drafting (CAD)	2
MATH 102*►	Intermediate Algebra	4
	Required Major Electives	2

*Can be used to fulfill General Education requirements.

►*This course may be waived if student can demonstrate appropriate score on the Math Placement Exam or other multiple measures.*

Second Semester (Spring)

ENGR 24	Descriptive Geometry	2
ENGR 30	Intermediate Computer-Aided Drafting	2
MATH 10*	Plane Trigonometry	3
	Required Major Electives	3

Third Semester (Fall)

ENGR 1A	Measurements and Plane Surveying	3
ENGR 37	Statics for Engr. Tech. and Construction Management	3
PHYS 2A*	General College Physics	4

Fourth Semester (Spring)

ENGR 38	Strength of Materials for Engr. Tech/Construction Mgmt.	3
	Required Major Electives	6

Required Major Electives: Choose at least eleven (11) units from the following:

Architectural Electives		
CONS 52	Residential Estimating	3
CONS 178	Building Codes and Standards	3
ENGR 20	Residential Design – second semester (spring)	2
ENGR 21	Architectural Drawing – third semester (fall)	3
ENGR 31	Architectural Detailing – fourth semester (spring)	2
ENGR 119	Blueprint and Specification Reading (Architectural) – first or third semester (fall)	2
Civil Electives		
ENGR 1B	Plane Surveying – fourth semester (spring)	3
ENGR 27	Map and Computer-Aided Drafting – third semester (fall)	3
ENGR 32	Adv. Civil Design Applications for CAD – fourth semester (spring)	3
Mechanical Electives		
ENGR 33	Solid Modeling Computer-Aided Drafting – fourth semester (spring)	2
ENGR 118	Blueprint and Specification Reading (Mechanical) – first or third semester (fall)	2
Other Electives		
ENGR 25	Structural Drafting (I)	3
ENGR 26	Industrial Drafting (I)	3
ENGR 64	Engineering Materials Testing (I)	3
ENGR 94	Engineering Worksite Learning (F/S)	1-4
ENGR 97	Special Topics (I)	.5-2
ENGR 98	Special Lab (I)	.5-2
AGNR 83	Introduction to Global Positioning Systems (GPS) (F/S)	1

TOTAL UNITS FOR CERTIFICATE **40**

Family Studies

This program is designed to provide students with foundational skills and concepts about human interaction within the primary social, cultural, and economic system of our society – **the family**. Individual and family issues that arise from changing societal patterns have created a vast need for a variety of support services. Students with an A.S. Degree in Family Studies will have the opportunity to enter the Human Services field in a number of paraprofessional positions, and with additional coursework would be prepared to transfer to a four-year college/university with lower division preparation for a Bachelor's of Social Work.

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:

There are 44 units required for the Associate Science Degree in Family Studies. An additional 12 units of General Education, plus electives to total 60 units will complete the A.S. Degree requirements. Students planning to transfer to a Social Work Baccalaureate Program should consider utilizing available General Education units and elective units to complete the specific lower division requirements of the transfer school of their choice. It is imperative to consult the catalog of that institution.

Recommended Course Sequence:

First Semester

ECE 1	Human Development	3
ECE 2	Child, Family and Community	3
FSS 16	Marriage & Family	3
SOC 1	Introduction to Sociology	3

Second Semester

CMST 10	Interpersonal Communication	3
FSS 10	Introduction to Human Services	3
FSS 60	Life Management	3
PSYC 1A	General Psychology	3

Third Semester

FSS 12	Standards and Practices in Human Services	3
FSS 25	Nutrition	3
PSYC 41	Cultural/Social Context of Childhood	3
SOC 70	Social Welfare	3

Fourth Semester

FSS 18	Adulthood and Aging	3
FSS 46	Personal Finance	3
FSS 94	Family Studies & Services Worksite Learning	1-4
FSS 95	Worksite Integration	1

Associate in Science Degree Requirements	
Major	**44-47**
General Education	**12**
Electives	**1-4**
TOTAL	**60**

Fire Technology

The Fire Technology curriculum is planned to serve both as an in-service program and as a pre-employment two-year program for community college students aspiring to enter the field of firefighting. Each student must complete thirty-five and a half (35½) units. Fire Technology majors may be required to fulfill a tour of duty at a local fire station.

The suggested course sequence has been supplied to the Counseling Division by the Instructional Division. Students are urged to use this outline along with the Shasta College catalog. Particular attention should be paid to course prerequisites and to whether a class is taught Fall or Spring semester or both. Courses listed may be offered either spring or fall semesters, or at the discretion of the division.

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:

Students must complete the "CORE" courses listed below for their major. In addition, students must satisfy all the regular Assoc. in Science degree requirements. For a complete description of those requirements, please refer to the "Associate in Science" section of this catalog.

Recommended Course Sequence:

Courses listed may be offered either spring or fall semesters, or at the discretion of the Department. This course sequence is based on students who are not taking the Firefighter I Academy. Students who want to complete the Firefighter I Academy should plan on committing one full semester to that class (25 total units).

First Semester (Fall)

FIRS 70	Introduction to Fire Technology	3
FIRS 71	Fire Behavior and Combustion	3
FIRS 74	Fire Protection Equipment and Systems	3
FIRS 79	Fire Fighter Safety and Survival	3
FIRS 85	Fire Command IA	2

Second Semester (Spring)

FIRS 72	Fire Prevention Technology	3
FIRS 86	Building Construction for the Fire Service	3
FIRS 101	Career Placement	1
FIRS 189	Fire Investigation I	2
FAID 175	EMT I Basic	3.5
	General Education	3

Third Semester (Fall)

BIOL 5	Introduction to Human Biology	3
FSS 25	Nutrition	3
CMST	CMST 10, 20, 54 or 60	3
	General Education	6

Fourth Semester (Spring)

	General Education	3
	Elective	12.5

Suggested Electives

FIRS 191	Fire Investigation 1B	2
FIRS 104	Fire Fighter I Academy	21
FIRS 87	Fire Command 1B	2
FIRS 94	Fire Fighter Trainee Worksite Learning	4
FIRS 180	Fire Management I	2.5
FIRS 108	Fire Fighter II Academy	5

Associate in Science Degree Requirements	
Major	**35.5**
General Education	**12**
Electives	**12.5**
TOTAL	**60.0**

The general education requirement includes English Composition. The Fire Technology student may choose the following alternative by enrolling in *ENGL 190 (4 units)* ***or* a combination of ENGL 191, and two units selected from either ENGL 192, ENGL 193 or ENGL 194 (for a total of 4 units)

California State Firefighter I and II Certification

Students wishing to apply for California State Fire Marshal's Office Firefighter I or II certification must meet the following criteria:

- ❑ Complete the required coursework as outlined by the State Fire Marshal's Office.
- ❑ Work a minimum of either six months as a paid full-time firefighter or 12 months as a volunteer.
- ❑ A recommendation and signature on appropriate form from the Fire Chief of the department that a student works for or volunteers at is a mandatory requirement.

Note: No college in California certifies individuals as Firefighter I or Firefighter II. All certifications are approved by the Calif. State Fire Marshal's Office.

Fire Technology – Wildland Firefighter I Academy

Students completing this certificate will have the basic firefighting training as required by the U.S. Forest Service and California Department of Forestry for seasonal or permanent employment in fire fighting.

REQUIREMENTS FOR CERTIFICATE:

FIRS 73 Wildland Firefighter I Academy 4 units Total

Geographic Information Systems

Geographic Information Systems (GIS) are applied in a wide array of fields including planning, business, public health, natural resource management and emergency response. The Geographic Information Systems (GIS) Certificate at Shasta College provides students the skills needed to apply a range of geospatial technologies and tools in a variety of applications. Students develop foundation skills in map use and in working with geographically referenced data. Supporting technologies such as CAD (computer-assisted design), GPS (global positioning systems), satellite imagery and the Internet, provide data to maximize the utility of GIS. Project design and implementation skills are developed to encourage best practices. Finally, worksite learning allows students to apply their GIS skills in the GIS work experience.

REQUIREMENTS FOR CERTIFICATE:

Fall Semester		
GIS 1	Survey of Digital Mapping	1
GIS 10	Introduction to GIS	3
GIS 20	Spatial Databases	1
GIS 21	GIS-CAD Integration	1
Spring Semester		
GIS 22	Mobile GIS/GPS	1
GIS 23	Raster GIS	1
GIS 24	Customizing GIS	1
GIS 25	GIS Projects	1
GEOG 11	Map Principles	1
Summer		
GIS 94	Worksite Learning	2
	TOTAL UNITS FOR CERTIFICATE	**13**

Additional Supporting Courses:

GIS 97	Special Topics in GIS	1
ENGR 29	Computer-Aided Drafting	3
CIS 1	Computer Literacy Workshop	3
CIS 2	Introduction to Computer Science	3
CIS 20	Access for Windows I	1
AGNR 83	Introduction to Global Positioning Systems (GPS)	1

Gerontology Certificate

(This program is temporarily suspended)

The Gerontology Certificate Program provides students with knowledge about the human aging process and the skills necessary to work directly in the field of aging. Students will develop the basic skills and knowledge regarding sociological, biological, and psychological aspects of a diverse aging society. Course work includes work eds and death and dying issues. Students with a Gerontology Certificate are prepared to work in long te rvice agencies, adult day care, in home care and community organizations.

Gerontology Certificate Currently Not Offered

REQUIREMENTS CERTIFICATE:

CORE COURSES:		
BIOL 60	Biology of Aging	3
GERO 77	Family Dynamics and Aging	3
SOC 22	Sociology of Aging	3
FSS 18	Adulthood and Aging	3
In addition, students must choose five (5) units from the following:		
FSS 25	Nutrition	3
GERO 64	Coping With Mental Illness And Dementia In Old Age	3
GERO 24	Ethnic Diversity and Aging	2
GERO 75	Death And Dying	2
	TOTAL UNITS FOR CERTIFICATE:	**17**

Hospitality – Baking – Culinary Arts Emphasis

REQUIREMENTS FOR CERTIFICATE:

BUAD 106	Business Math or Math Placement Level 3 or higher	3
CULA 50	Safety and Sanitation	2
CULA 172	Baking	2
	TOTAL UNITS FOR CERTIFICATE	**4-7**

Hospitality – Bartender – Culinary Arts Emphasis

REQUIREMENTS FOR CERTIFICATE:

CULA 50	Safety and Sanitation	2
CULA 60	Beverage Management	2
CULA 73	Introduction to Wine	2
	TOTAL UNITS FOR CERTIFICATE	**6**

Hospitality – Dining Room Management – Culinary Arts Emphasis

REQUIREMENTS FOR CERTIFICATE:

BUAD 106	Business Math or Math Placement Level 3 or higher	3
CULA 50	Safety and Sanitation	2
CULA 65	Dining Room Service	3
CULA 73	Introduction to Wine	2
HOSP 10	Introduction to Hospitality	3
HOSP 45	Restaurants, Hotels, and Lawful Management	2
	TOTAL UNITS FOR CERTIFICATE	**12-15**

Hospitality – Dining Room Staff – Culinary Arts Emphasis

REQUIREMENTS FOR CERTIFICATE:

BUAD 106	Business Math or Math Placement Level 3 or higher	3
CULA 50	Safety and Sanitation	2
CULA 65	Dining Room Service	3
	TOTAL UNITS FOR CERTIFICATE	**5-8**

Hospitality – Enology and Viticulture Practices

REQUIREMENTS FOR CERTIFICATE:

CULA 74	Basic Winemaking	2
CULA 76	Intermediate Winemaking	2
AGVIT 80	Vineyard Design and Construction	1
AGVIT 81	Vineyard Care	1
AGEH 94	Horticulture Worksite Learning	1
	TOTAL UNITS FOR CERTIFICATE	**7**

Hospitality – European and California Wines

REQUIREMENTS FOR CERTIFICATE:

CULA 73	Introduction to Wine	2
CULA 82	Wines of California	3
CULA 84	Cultural Appreciation of Wine	3
CULA 86	Wines of France and Italy	2
CULA 88	The Wines of the North State	1
	TOTAL UNITS FOR CERTIFICATE	**11**

Hospitality – Line Cook – Culinary Arts Emphasis

REQUIREMENTS FOR CERTIFICATE:

CULA 45	Basic Food Production	5
CULA 46	Advanced Foods	5
CULA 50	Safety and Sanitation	2
HOSP 10	Introduction to Hospitality	3
	TOTAL UNITS FOR CERTIFICATE	**15**

Hospitality – Winemaking and Marketing

The Winemaking and Marketing Certificate is designed to provide students with hands-on experience in winemaking, viticultural practices, and wine analysis. It is intended for the entrepreneur exploring business opportunities in the grape wine industry, and/or the prospective small winery employee, as well as the home winemaker, interested in career or skills development. Hands-on winemaking from crush through fermentation, sensory evaluation, product marketing, and food and wine pairing will be covered.

REQUIREMENTS FOR CERTIFICATE:

CULA 66	Wine With Food	2
CULA 73	Introduction to Wine	2
CULA 74	Basic Winemaking	2
CULA 76	Intermediate Winemaking	2
CULA 78	Sensory Evaluation of Wine	2
CULA 80	Wine Sales and Marketing	3
CULA 88	Wines of the North State	1
AGVIT 80	Vineyard Design and Construction	1
AGVIT 81	Vineyard Care	1
AGEH 94	Horticulture Worksite Learning	1
	TOTAL UNITS FOR CERTIFICATE:	**17**

Hospitality Management

The Shasta College Hospitality Program is designed to provide students with the basic skills, abilities and knowledge necessary to prepare them for various positions in the hotel/motels, restaurants, clubs, cafeterias, contract feeders, schools, resorts, recreation companies, airlines and cruise ship operations.

The student must complete the "CORE" courses listed below. In addition, students must satisfy all of the regular Associate in Science degree requirements. For a complete description of those requirements, please refer to the "Associate in Science" section of this catalog.

BUAD 66	Business Communications	3
BUAD 106	Business Mathematics	3
CIS 1	Computer Literacy Workshop	3
CULA 50	Sanitation and Safety	2
CULA 55	Purchasing	2
HOSP 10	Introduction to the Hospitality Industry	3
HOSP 40	Human Resources Management in the Hospitality Industry	3
HOSP 65	Hospitality Supervision	3

Hospitality Management - Casino Management Concentration

REQUIREMENTS FOR CERTIFICATE:

This certificate has been developed in response to community needs for training in the casino industry. Hospitality and tourism is one of the world's largest industry segments. In terms of gross revenues and number of employees, this is one of the fastest growing industries worldwide. Casinos make up a fundamental part of overall hospitality operations, and are considered to be the major revenue producer for many hotels and resorts around the globe. Casino operations and management here at Shasta College concentrates on students who are interested in pursuing any aspect of casino or gaming related operations.

CAS 10	Introduction to Casino Operations	3
CAS 20	The History of Gaming/Native American Gaming	1
CAS 30	Casino Surveillance	3
CAS 40	Casino Management and Operations	3
CAS 50	Casino Marketing/Consumer Behavior	3
CAS 94	Casino Management Worksite Learning	1-4
	TOTAL UNITS FOR CERTIFICATE	**14-17**

Hospitality Management – Culinary Arts Concentration

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:

Recommended Course Sequence:

First Semester (Fall)

BUAD 106	Business Mathematics	3
CULA 45	Basic Food Production	5
CULA 50	Sanitation and Safety	2
FSS 25	Nutrition	3
HOSP 10	Introduction to the Hospitality Industry	3

Second Semester (Spring)

CULA 46	Advanced Foods	5
CULA 49	Menu Planning and Cost Analysis	2
CULA 55	Purchasing	2
CULA 94	Culinary Arts Works Site Learning	1
CULA 159	Stocks, Soups, Sauces & Basic Culinary Preparation	2
CULA 161	The Art of Garde Manger	2

Third Semester (Fall)

CULA 48	Gourmet Food Preparation	3
CULA 60	Beverage Management	2
CULA 65	Dining Room Service	3
CULA 94	Culinary Arts Worksite Learning	1
CULA 172	Baking	2
HOSP 65	Hospitality Supervision	3

Fourth Semester (Spring)

BUAD 66	Business Communications	3
CULA 94	Culinary Arts Worksite Learning	1
	General Education	12

Associate in Science Degree Requirements	
Major	**48**
General Education	**12**
TOTAL	**60**

REQUIREMENTS FOR CERTIFICATE:

First Semester

BUAD 106	Business Mathematics	3
CULA 45	Basic Food Production	5
CULA 50	Sanitation and Safety	2
FSS 25	Nutrition	3
HOSP 10	Introduction to the Hospitality Industry	3

Second Semester

CULA 46	Advanced Foods	5
CULA 49	Menu Planning and Cost Analysis	2
CULA 55	Purchasing	2
CULA 94	Culinary Arts Worksite Learning	1
CULA 159	Stocks, Soups, Sauces & Basic Culinary Preparation	2
CULA 161	The Art of Garde Manger	2

Third Semester

CULA 48	Gourmet Foods Preparation	3
CULA 60	Beverage Management	2
CULA 65	Dining Room Service	3
CULA 94	Culinary Arts Worksite Learning	1
CULA 172	Baking	2
HOSP 65	Hospitality Supervision	3
	TOTAL UNITS FOR CERTIFICATE	**44**

Hospitality Management - Hotel/Restaurant Management Concentration

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:

Recommended Course Sequence:

First Semester (Fall)

BUAD 106	Business Mathematics	3
CIS 1	Computer Literacy Workshop	3
CULA 50	Safety and Sanitation	2
HOSP 10	Introduction to the Hospitality Industry	3
	General Education	3

Second Semester (Spring)

BUAD 66	Business Communications	3
BUAD 80	Customer Service	3
CULA 55	Purchasing	2
HOSP 20	Hospitality Operations Management	3
HOSP 94	Hospitality Worksite Learning	1
	General Education	3

Third Semester (Fall)

HOSP 35	Computer Applications in the Hospitality Industry	3
HOSP 45	Restaurants, Hotels, and Lawful Management	2
HOSP 50	Hospitality Marketing, Sales and Advertising	3
HOSP 65	Hospitality Supervision	3
HOSP 94	Hospitality Worksite Learning	2
	General Education	3

Fourth Semester (Spring)

CULA 73	Introduction to Wines OR	
CULA 66	Wine with Food	2
HOSP 40	Human Resource Management in the Hospitality Industry	3
HOSP 60	Hospitality and Financial Management	3
HOSP 94	Hospitality Worksite Learning	1
	General Education	6

Associate in Science Degree Requirements	
Major	**45**
General Education	**15**
TOTAL	**60**

REQUIREMENTS FOR CERTIFICATE:

BUAD 80	Principles of Customer Service	3
HOSP 10	Introduction to the Hospitality Industry	3
HOSP 20	Hospitality Operations Management	3
HOSP 35	Computer Applications in the Hospitality Industry	3
HOSP 40	Human Resource Management in the Hospitality Industry	3
HOSP 94	Hospitality Worksite Learning	2
	TOTAL UNITS FOR CERTIFICATE	**17**

Industrial Technology Certificate

The Industrial Technology Certificate is designed to provide employable knowledge and skills courses common to various industrial occupations for entry-level employment in diverse industries.

REQUIREMENTS FOR CERTIFICATE:

DIES 48	Hydraulics	3.5
ELEC 138	Fundamentals of Electronics and Electricity	3
INDE 101	Industrial Occupation Basics	3
MATH 100	Technical Applications of Mathematics	3
WELD 70	Beginning Welding	3
	TOTAL UNITS FOR CERTIFICATE:	**15.5**

Journalism

This curriculum is designed to provide preparation for careers in newspaper and magazine editorial work, advertising and graphics, television and radio news, or public relations; and to provide a study of the media of mass communications for those students who feel it would contribute to their liberal education.

REQUIREMENTS FOR CERTIFICATE:

JOUR 21	Introduction to Mass Communications	3
JOUR 24	Newspaper Production	6
JOUR 27	Newswriting and Reporting	3
JOUR 29	Photojournalism	2
MKTG 70	Sales ***OR*** MKTG 72 Advertising	3
CMST 10	Interpersonal Communication	3
	TOTAL UNITS FOR CERTIFICATE:	**20**

REQUIREMENTS FOR ASSOCIATE IN ARTS DEGREE:

Students must complete the courses required for the Certificate. In addition, students must fulfill the 33-39-unit general education pattern for CSU or IGETC.

Associate in Arts Degree Requirements	
Major	**20**
General Education	**33-39**
Electives	**1-7**
TOTAL	**60**

The Lance is published 15 times a year from September to May by the Journalism 24 class at Shasta College

Legal Assistant

The Legal Assistant Program is designed to prepare individuals for employment as legal assistants in law firms, corporations, banks, insurance companies, and government agencies. Legal assistants are also referred to as paralegals. The legal assistant, under the supervision of an attorney, provides a variety of services to lawyers and clients. These may include research, investigation, interviewing clients or witnesses, preparing depositions, and drafting legal memoranda and briefs. The legal assistant can do any type of legal work that does not involve giving advice to clients or representing clients in court. The faculty for this program consists of practicing attorneys. Classes are offered in the evening only.

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:

Recommended Course Sequence:

First Semester (Fall)

LEGL 39	Introduction to Paralegalism	3
LEGL 40	Legal Research and Writing I	3
LEGL 44	Civil Procedure and Litigation	3
	General Education	6

Second Semester (Spring)

CIS 1	Computer Literacy Workshop	3
LEGL 41	Legal Research and Writing II	3
LEGL 42	Discovery	3
	General Education	6

Third Semester (Fall)

LEGL 43	Real Estate Law	3
LEGL 45	Torts	3
LEGL 47	Contracts, Employment and Agency	2
	General Education	6

Fourth Semester (Spring)

LEGL 94	Legal Assistant Worksite Learning	2
LEGL 48	Family Law	3
LEGL 49	Commercial Law	2
LEGL 53	Probate	3

Required Major Electives: Choose six (6) units from the following:

BUAD 6	Business Law	3
BUAD 8	Business Law	3
LEGL 94	Legal Assistant Worksite Learning	1-2
LEGL 46	Bankruptcy Practices	2
LEGL 50	Business Organizations	2
LEGL 51	Estate Planning	3
LEGL 52	Collections and Judgments	2
LEGL 55	Techniques of Interview and Investigation	2
LEGL 56	Criminal Law and Procedures	3
OAS 91	Word for Windows I	1
OAS 162	Legal Form Preparation	3

Associate in Science Degree Requirements	
Major	**42**
General Education	**18**
TOTAL	**60**

Life Management

This certificate is designed to provide students with the information, perceptions and skills necessary to move toward responsible independence and effective interpersonal relationships. Resources such as time, money and energy will be stressed along with the study of the physical, mental, emotional and social needs of all ages. This curriculum is essential for preparing individuals to balance personal, family and work responsibilities throughout the life cycle.

All courses to be applied to the Life Management Certificate must be completed with a "C" grade or better.

REQUIREMENTS FOR CERTIFICATE:

Students must complete the courses listed below with a "C" grade or better:

ECE 1	Human Development	3
FSS 16	Marriage and Family	3
FSS 60	Life Management	3
FSS 25	Nutrition	3
FSS 46	Personal Finance	3
	TOTAL UNITS FOR CERTIFICATE:	**15**

Music

REQUIREMENTS FOR ASSOCIATE IN ARTS DEGREE:
Students must complete the courses required for the Certificate. In addition, students fulfill the 33-39 unit general education pattern for CSU or IGETC.

NOTE: Students planning to transfer to National Association of Schools of Music (NASM) accredited universities to complete a BA degree in Music, in addition to meeting the above-listed major requirements, will be required to show proficiency in the following areas: theory, keyboard skills, vocal skills, music history/appreciation, and applied musicianship. Such students should successfully complete 4 units of Directed Independent Study/Music classes in addition to the major requirements listed above. Directed independent study classes are for full-time music majors and are for collegiate study on individual instruments or voice. Directed independent study requires permission of instructor to enroll.

Recommended Course Sequence:

First Semester (Fall)

MUS 2√	Diatonic Harmony and Musicianship	5
MUS 30-60√	Two Music Ensembles (1 required for core)	2
MUS 61*	Performance Analysis	0.5
	Directed Independent Study/Music	1
	General Education/Electives	

Second Semester (Spring)

MUS 3√	Diatonic Harmony and Musicianship	5
MUS 30-60√	Two Music Ensembles (1 required for core)	2
MUS 61*	Performance Analysis	0.5
	Directed Independent Study/Music	1
	General Education/Electives	

Third Semester (Fall)

MUS 4√	Chromatic Harmony	5
MUS 30-60√	Two Music Ensembles (1 required for core)	2
MUS 61*	Performance Analysis	0.5
	Directed Independent Study/Music	1
	General Education/Electives	

Fourth Semester (Spring)

MUS 5√	20th Century Harmony	5
MUS 30-60√	Two Music Ensembles (1 required for core)	2
MUS 61*	Performance Analysis	0.5
	Directed Independent Study/Music	1
	General Education/Electives	

√ Required Music CORE Course * Highly Recommended

Recommended Elective Courses:

MUS 1	Music Fundamentals (pre-Music Major only)
MUS 7	Beginning Arranging and Songwriting
MUS 10	Music Appreciation (valid for G.E.)
MUS 11	History of Jazz and Rock (valid for G.E.)
MUS 12	Introductions to Computers and Elect. Inst. in Music
MUS 22	Beginning Piano (pre-Music Major only)
MUS 29/30	Beginning/Intermediate Voice
MUS 61	Performance Analyses
	Directed Independent Study/Music

Associate in Arts Degree Requirements	
Major	**24**
General Education	**33-39**
Electives	**0-3**
TOTAL	**60**

REQUIREMENTS FOR CERTIFICATE:
Completion of this Certificate will prepare the student for employment in retail music merchandising and private music instruction.

MUS 2	Diatonic Harmony and Musicianship	5
MUS 3	Diatonic Harmony and Musicianship	5
MUS 4	Chromatic Harmony	5
MUS 5	20th Century Harmony	5
Choose four (4) units from the following (one per semester):		
MUS 30-60	Music Ensembles (Small or Large)	4
	TOTAL UNITS FOR CERTIFICATE:	24

Nonprofit Organization Management

REQUIREMENTS FOR CERTIFICATE:

BUAD 46	Fundamentals of Nonprofit Management	1
BUAD 47	Fundraising Techniques and Planning	1
BUAD 48	Grant Funding: Finding the Right Source	1
BUAD 49	Nonprofit Financial Management	.5
BUAD 50	Marketing and Public Relations for Nonprofits	1
BUAD 51	Boards of Directors in Nonprofit Organizations	.5
BUAD 52	Staff and Volunteer Management in Nonprofit Orgs	1
BUAD 53	Accountability Requirements for Nonprofit Organizations	.5
BUAD 54	Nonprofit Policy, Advocacy and Community Building	.5
	TOTAL UNITS FOR CERTIFICATE:	**7**

Nurse Aide/Home Health Aide

Curriculum for this course is designed to prepare a student to work in any one of several health care situations, (acute care hospital, long term care, and home care).

Students, at their expense, are required to have a physical examination and immunizations prior to entering the Nurse Aide/Home Health Aide course. Students must meet established physical criteria to participate in the clinical area and have a current Basic CPR card Class C.

REQUIREMENTS FOR CERTIFICATE:

HEOC 180	Nurse Aide/Home Health Aide	13
	TOTAL UNITS FOR CERTIFICATE:	**13**

Nursing – Associate Degree Nursing

The educational objective of the Associate in Science Degree Nursing program is to prepare the student who, upon graduation and successful completion of the NCLEX-RN, will be able to function within the scope of nursing as defined by the State of California Nursing Practice Act. Students, at their expense, are required to have a physical examination and necessary immunizations prior to entering the Associate Degree Nursing program. Students must meet established physical criteria to participate in the clinical area, have a current Basic Life Support – Health Care Provider card (includes two-person rescue and infant resuscitation).

Note: All students participating in clinical rotations must pass of drug screening and a background check prior to enrollment in the program. Students are financially responsible for meeting these requirements according to the established program process.

Graduation Requirements:

1. Completion of the Humanities requirement.
2. Completion of competence in mathematics. *MATH 101 Basic Algebra* ***or*** *MATH 100 Technical Application of Mathematics are the advised courses for meeting this requirement.*

Due to the time commitments of the A.D.N. program, it is strongly recommended to complete the graduation requirements before entering the program.

ENROLLMENT CRITERIA FOR THE PROGRAM:

Students filing enrollment packets must be a high school graduate or equivalent. The **"PREREQUISITE SCIENCE"** courses listed below must be completed with a **2.5** GPA. Prerequisites must be completed upon application. No in progress courses will be accepted.

PREREQUISITE COURSES:

ANAT 1	Anatomy	5
MICR 1	*Microbiology	5
PHY 1	Physiology (with lab)	5

Students must complete the remaining "PREREQUISITE" courses listed below with a grade of "C" or better in each course.

ENGL 1A	College Composition	4
Choose one of the following:		3
ANTH 2	Cultural Anthropology	
SOC 1	Introduction to Sociology	
SOC 2	Social Problems	
Choose one of the following:		3
PSYC 1A	General Psychology	
PSYC 14	Understanding Human Behavior	
Choose one of the following:		*3*
CMST 10	Interpersonal Communication	
CMST 54	Small Group Communication	
CMST 60	Public Speaking	
	TOTAL UNITS OF PREREQUISITES:	**28**

*Check course description for prerequisite

Continued on next page

Nursing-Associate Degree Nursing A.S. Degree – continued:

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:
Students must be enrolled into the ADN program. Students must then complete the courses listed below.

Course Sequence:

First Semester			
REGN 1	Theoretical Foundations of Nursing Care	7	
REGN 2	Clinical Foundations of Nursing Care	5	
Second Semester			
REGN 10	Theoretical Concepts of Medical Surgical Nursing I	7	
REGN 11	Clinical Concepts of Medical Surgical Nursing I	4.5	
REGN 12	Assessment Concepts of Medical Surgical Nursing	.5	
Third Semester			
REGN 20	Theor Concepts of Family/Mat-Child Nursing & Med Surg Nursing II	7	
REGN 21	Clinical Concepts of Family/Maternal-Child & Med Surg Nursing II	5	
Fourth Semester			
REGN 33*	Theor Conc. Mental Health/Comm-Based Nurs & Med/Surg Nurs III	6	**previously REGN 30 and 31*
REGN 34**	Clinical Conc. Mental Health/Comm-Based Nurs & Med/Surg Nurs III	6	***previously REGN 32*
	TOTAL UNITS FOR MAJOR:	**48**	

NOTE: In order to progress through the nursing courses, students must demonstrate competence in both the theory and clinical components. Failing or Withdrawing from any one of the semester's corequisite courses requires withdrawal from all of that semester's corequisite courses.

Students with previous nursing education who have been enrolled in a class will be given the opportunity to receive units and credit toward completion of the A.S. degree program by challenge in theory and clinical performance (this is only after being enrolled in the class). Licensed Vocational Nurses may apply for the LVN-RN A.S. Degree Program. See enrollment criteria for LVN-RN Associate Degree Nursing Program. LVNs may elect to take a non-degree program under the BRN regulation 1429 – the 30 unit option. This consists of twenty (20) units in nursing and ten (10) units of related science. REGN 20X, REGN 21X, REGN 33X, and REGN 34X are the required 20 units of nursing plus microbiology and physiology the required 10 units of science. Students must see nursing program director if considering this option.

ENROLLMENT CRITERIA FOR THE LVN-RN PROGRAM
Students filing enrollment packets for the LVN/RN program must complete the following prerequisite science courses listed below with a GPA of 2.5. Prior to spring 2008 a grade of C or better will be accepted.

Prerequisite Courses:

ANAT 1	Anatomy	5
MICR 1*	Microbiology	5
PHY 1	Physiology (with lab)	5

Students filing enrollment packs for the LVN-RN program must complete the remaining prerequisite courses listed below with a grade of C or higher.

ENGL 1A	College Composition	4
Choose **one** of the following:		3
PSYC 1A	General Psychology	
PSYC 14	Understanding Human Behavior	
Choose **one** of the following:		3
SOC 1	Introduction to Sociology	
SOC 2	Social Problems	
ANTH 2	Cultural Anthropoogy	
Choose **one** of the following:		3
CMST 10	Interpersonal Communication	
CMST 54	Small Group Communication	
CMST 60	Public Speaking	
REGN 79	LVN-RN Transition	2

*Check course description for prerequisite

TOTAL UNITS FOR PREREQUISITES **30**

LVN-RN applicants will also need to complete graduation requirements prior to submitting an application packet.

Graduation Requirements:
1. High school diploma or equivalent
2. Completion of the Humanities requirement
3. Completion of competence in mathematics (MATH 101 Basic Algebra or MATH 100 Technical Application of Mathematics is the advised course for meeting this requirement)

Nursing – Vocational Nursing

This curriculum is designed to prepare selected individuals to provide nursing care requiring technical-manual skills under the supervision of a Registered Nurse or physician. Upon successful completion of the program, a student receives a Certificate of Completion and is eligible to take the NCLEX-PN for licensure as a Vocational Nurse. Students who have had previous education and experience in nursing will be given the opportunity to receive credit toward completion of the program.

Space in the program is limited to 35 students. A new class is enrolled every three semesters. In order to be eligible for enrollment, students must satisfy the prerequisites listed below.

Note: All students participating in clinical rotations must submit proof of drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.

PREREQUISITES TO VOCATIONAL NURSING PROGRAM:

1. Students must have a high school diploma or equivalent.
2. Students must be a current Certified Nurse Aide
3. Students must complete the following courses with a "C" grade or better.

BIOL 5	Introduction to Human Biology	3
BIOL 6	Human Biology Lab	1
ECE 1	Human Development	3
FSS 25	Nutrition	3
Choose **one** of the following:		3
PSYC 1A	General Psychology	
PSYC 14	Understanding Human Behavior	

REQUIREMENTS FOR CERTIFICATE:

Students must be enrolled in the program in order to take the courses listed below. Students, at their expense, are required to have a physical examination and immunizations prior to entering the program. Students must meet established physical criteria to participate in the clinical area, have a current Basic CPR card Class C, provide proof of drug testing, and a completed background check.

Students must complete the courses below in order to receive the certificate:

VOCN 160	Foundations of Nursing Practice	15
VOCN 161	Nursing of Adults	13
VOCN 162	Nursing of Adults and Children	13
	TOTAL UNITS FOR CERTIFICATE:	**41**

NOTE: Students must show competence in both clinical and theory components (a "C" grade or better) in order to progress through the curriculum. A failing clinical grade results in removal from the program regardless of the theory grade.

RECOMMENDED COURSES (Not required): ENGL 190, HEOC 110, MATH 220

Office Administration

The following degrees and certificates are designed to prepare the student for an entry-level office support position.

Associate in Science Degree	Certificate
Administrative Assistant	Clerical Assistant
Administrative Assistant – Legal	Information Processing Specialist
Information Processing Specialist	Medial Billing Specialist
Medical Office Specialist	Records Manager
Transcriptionist-Medical	Transcriptionist-Medical

* Upon completion of OAS 51 with a grade of C or better, OAS 91 is not necessary. If you are proficient in keyboarding, you may be able to take OAS 91 in lieu of OAS 51. See your counselor if you think you might qualify.

Office Administration – Administrative Assistant

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:

This curriculum provides training for students interested in possessing a mastery of office skills. The program is designed for students to enter the office support service of government, business, and industry. It shares many of the same courses as the Information Processing Specialist program.

Recommended Course Sequence:

First Semester (Fall)

BUAD 166	Business English	3
CIS 1	Computer Literacy Workshop	3
*OAS 51	Keyboarding I-Beginning Typing **OR**	
*OAS 91	Word for Windows-I	1-3
OAS 64	Computerized Ten-Key	0.5
OAS 157	Office Procedures	3

Second Semester (Spring)

BUAD 45	Human Relations on the Job	3
BUAD 106	Business Mathematics	3
CIS 10	Excel for Windows	1
CIS 70	Windows I	1
CIS 80	Internet Basics	1
OAS 52	Keyboarding II-Intermediate Typing	3
OAS 92	Word for Windows II	1
	General Education	3

Third Semester (Fall)

ACCT 101	Basic Accounting I	3
OAS 53	Keyboarding III (Adv. & Technical Typing)	3
OAS 58	Word Processing Transcription	3
OAS 166	Records Management	2
	Any Elective	3.5-5.5
	General Education	3

Fourth Semester (Spring)

BUAD 66	Business Communications	3
OAS 63	Voice Recognition Software	1
OAS 80	Outlook	1
OAS 94	PowerPoint	1
OAS 171	Proofreading Skills	2
	General Education	6

Highly recommended electives:

CIS 20	Access for Windows-I	1
CIS 81	Web Design (Front Page I)	1
OAS 93	Word for Windows-III	1
OAS 96	Integrated Computer Applications	2
OAS 152	Keyboarding for Speed and Accuracy	0.5

**Upon completion of OAS 51 with a grade of C or higher, OAS 91 is not necessary. If you are proficient in keyboarding, you may be able to take OAS 91 in lieu of OAS 51. See your counselor if you think you might qualify.*

Associate in Science Degree Requirements	
Major	**42.5 - 44.5**
General Education	**12**
Electives	**3.5-5.5**
TOTAL	**60.0**

Office Administration – Administrative Assistant – Legal

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:

Designed for the student to acquire entry-level skills in the legal secretarial field. Students will develop skills in transcription and develop knowledge of legal terms. The student will become familiar with the law office, the court structure, litigation, family law, wills and probate, corporations, real estate, bankruptcy, and criminal law.

Recommended Course Sequence:

First Semester (Fall)

LEGL 39	Introduction to Paralegalism	3
LEGL 44	Civil Procedures and Litigation	3
OAS 51	Keyboarding I-Beginning Typing	3
OAS 157	Office Procedures	3
	General Education	3

Second Semester (Spring)

BUAD 45	Human Relations on the Job	3
BUAD 166	Business English	3
LEGL 42	Discovery	3
OAS 52	Keyboarding II-Intermediate Typing	3
OAS 64	Computerized Ten-Key	0.5
	General Education	3

Third Semester (Fall)

CIS 1	Computer Literacy Workshop	3
LEGL 40	Legal Research and Writing	3
OAS 58	Word Processing Transcription	3
	General Education	6

Fourth Semester (Spring)

ACCT 101	Basic Accounting I	3
BUAD 66	Business Communications	3
LEGL 94	Worksite Learning	1-4
OAS 162	Legal Form Preparation	3
	Any Elective	0-1.5
	General Education	3

Highly recommended electives:

BUAD 8	Business Law	3
BUAD 106	Business Mathematics	3
CIS 20	Access for Windows – I	1
CIS 80	Internet Basics	1
CIS 81	Web Design (Front Page I)	1
OAS 63	Voice Recognition Software	1
OAS 80	Outlook	1
OAS 92	Word for Windows II	1
OAS 96	Integrated Computer Applications	2
OAS 152	Keyboarding for Speed and Accuracy	0.5
OAS 166	Records Management	2
OAS 171	Proofreading Skills	2

Associate in Science Degree Requirements	
Major	**43.5-46.5**
General Education	**15**
Electives	**0-1.5**
TOTAL	**60-61.5**

Office Administration - Clerical Assistant

REQUIREMENTS FOR CERTIFICATE:

BUAD 166	Business English	3
CIS 10	Excel for Windows – I	1
CIS 70	Windows I	1
OAS 51	Keyboarding I (Beginning Typing)	3
OAS 52	Keyboarding II (Intermediate Typing)	3
OAS 64	Computerized 10-Key	0.5
OAS 80	Outlook	1
OAS 94	PowerPoint	1
OAS 152	Keyboarding for Speed and Accuracy	0.5
OAS 157	Office Procedures	3
	TOTAL UNITS FOR CERTIFICATE	**17**

Office Administration - Information Processing Specialist

The Information Processing Specialist Program is designed to prepare students with the skills necessary to enter the office support service of government, business, and industry. Students will gain competency in word processing, spreadsheet, database and desktop publishing applications. This program shares many of the same courses as the Office Administration - Administrative Assistant degree, but includes more information processing courses. Upon completion of the program, the student will have the ability to meet the demands of the office.

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:

First Semester (Fall)

BUAD 166	Business English	3
CIS 1	Computer Literacy Workshop	3
CIS 70	Windows I	1
*OAS 51	Keyboarding I-Beginning Typing **OR**	
*OAS 91	Word for Windows-I	1-3
OAS 64	Computerized Ten-Key	0.5
OAS 157	Office Procedures	3

Second Semester (Spring)

BUAD 106	Business Mathematics	3
CIS 10	Excel for Windows-I	1
CIS 11	Excel for Windows-II	1
CIS 80	Internet Basics	1
OAS 52	Keyboarding II-Intermediate Typing	3
OAS 92	Word for Windows-II	1
OAS 93	Word for Windows-III	1
OAS 171	Proofreading Skills	2
	General Education	3

Third Semester(Fall)

BUAD 45	Human Relations on the Job	3
CIS 20	Access for Windows-I	1
CIS 21	Access for Windows-II	1
OAS 58	Word Processing Transcription	3
OAS 94	PowerPoint	1
OAS 166	Records Management	2
	General Education	3
	Any Elective	2.5-4.5

Fourth Semester (Spring)

BUAD 66	Business Communications	3
CIS 81	Web Design (Front Page I)	1
OAS 80	Outlook	1
OAS 96	Integrated Computer Applications	2
	General Education	6

Highly Recommended Elective:

OAS 63	Voice Recognition Software	1
OAS 152	Keyboarding for Speed and Accuracy	0.5

**Upon completion of OAS 51 with a grade of C or higher, OAS 91 is not necessary. If you are proficient in keyboarding, you may be able to take OAS 91 in lieu of OAS 51. See your counselor if you think you might qualify.*

Associate in Science Degree Requirements	
Major	**43.5-45.5**
General Education	**12**
Electives	**2.5-4.5**
TOTAL	**60**

Certificate requirements continued on next page

Office Administration – Information Processing Specialist continued:

REQUIREMENTS FOR CERTIFICATE:

First Semester (Fall)

BUAD 166	Business English	3
CIS 1	Computer Literacy Workshop	3
CIS 70	Windows I	1
*OAS 51	Keyboarding I-Beginning Typing **OR**	
*OAS 91	Word for Windows-I	1-3
OAS 64	Computerized Ten Key	0.5
OAS 157	Office Procedures	3
OAS 166	Records Management	2

Second Semester (Spring)

BUAD 45	Human Relations on the Job	3
CIS 10	Excel for Windows-1	1
CIS 20	Access for Windows-I	1
CIS 80	Internet Basics	1
OAS 52	Keyboarding II-Intermediate Typing	3
OAS 58	Word Processing Transcription	3
OAS 63	Voice Recognition Software	1
OAS 80	Outlook	1
OAS 94	PowerPoint	1
OAS 171	Proofreading	2
	TOTAL UNITS FOR CERTIFICATE:	**30.5-32.5**

Highly Recommended Electives:

OAS 92	Word for Windows-II	1
OAS 93	Word for Windows-III	1
OAS 96	Integrated Computer Applications	2
OAS 152	Keyboarding for Speed and Accuracy	0.5

**Upon completion of OAS 51 with a grade of C or higher, OAS 91 is not necessary. If you are proficient in keyboarding, you may be able to take OAS 91 in lieu of OAS 51. See your counselor if you think you might qualify.*

Office Administration — Medical Billing Specialist

This program is designed to prepare the student for an entry-level position as a medical billing specialist to prepare claims for health care facilities, clinics, physicians' offices, medical equipment companies, and medical billing service companies. Upon completion of this program, the graduate should have the necessary knowledge and skills to secure employment in either the medical provider or health carrier sectors.

REQUIREMENTS FOR CERTIFICATE:

Recommended Course Sequence:

First Semester (Fall)

BUAD 166	Business English	3
HEOC 110	Beginning Medical Terminology	3
OAS 51	Keyboarding I-Beginning Typing	3
OAS 112	Basic ICD-9-CM and CPT-4 Coding	3
OAS 150	Computerized Medical Account Management	3
OAS 158	Medical Office Procedures	3

Second Semester (Spring)

HEOC 111	Advanced Medical Terminology	3
OAS 52	Keyboarding II-Intermediate Typing	3
OAS 113	Advanced ICD-9-CM and CPT-4 Coding	3
OAS 171	Proofreading Skills	2
	TOTAL UNITS FOR CERTIFICATE	**29**

Office Administration – Medical Office Specialist

This curriculum is designed to prepare the individual with clerical medical office skills for entry-level employment in physicians' offices, health care facilities, clinics, laboratories, health and accident insurance companies, and related clerical duties essential to medical office assisting.

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:

Recommended Course Sequence:

First Semester (Fall)

BUAD 45	Human Relations on the Job	3
BUAD 106	Business Mathematics	3
BUAD 166	Business English	3
*OAS 51	Keyboarding I-Beginning Typing OR	
*OAS 91	Word for Windows I*	1-3
OAS 64	Computerized Ten-Key	0.5
	General Education	3

Second Semester (Spring)

ACCT 101	Basic Accounting I	3
HEOC 110	Beginning Medical Terminology	3
OAS 52	Keyboarding II-Intermediate Typing	3
OAS 63	Voice Recognition Software	1
OAS 158	Medical Office Procedures	3
OAS 171	Proofreading Skills	2

Third Semester (Fall)

BUAD 66	Business Communications	3
HEOC 111	Advanced Medical Terminology	3
OAS 53	Keyboarding III—Adv. And Technical Typing	3
OAS 112	Basic ICD-9-CM and CPT-4 Coding	3
OAS 159	Word Processing I - Medical Transcription	1.5
	General Education	3

Fourth Semester (Spring)

ACCT 103	PC Accounting	2
OAS 113	Advanced ICD-9-CM and CPT-4 Coding	3
OAS 114	Healthcare Billing and Reimbursement	3
OAS 150	Computerized Medical Account Management	3
OAS 160	Word Processing II-Med. Transcription	1.5
	General Education	6

Highly recommended electives:

CIS 10	Excel for Windows-I	1
CIS 20	Access for Windows-I	1
CIS 80	Internet Basics	1
OAS 92	Word for Windows II	1
OAS 152	Keyboarding for Speed and Accuracy	0.5

**Upon completion of OAS 51 with a grade of C or higher, OAS 91 is not necessary. If you are proficient in keyboarding, you may be able to take OAS 91 in lieu of OAS 51. See your counselor if you think you might qualify.*

Associate in Science Degree Requirements	
Major	**51.5-53.5**
General Education	**12**
TOTAL	**63.5-65.5**

Office Administration – Records Manager

This curriculum is designed to enable the student to develop an understanding of the field of records management - the criteria by which records were created, stored, retrieved, and disposed of; clear-cut rules for alphabetic, numeric, subject, and geographic filing; the foundation of records storage methods; and principles for the selection of records personnel, equipment, and supplies.

REQUIREMENTS FOR CERTIFICATE:

Recommended Course Sequence:

First Semester (Fall)

BUAD 166	Business English	3
CIS 70	Windows I	1
*OAS 51	Keyboarding I-Beginning Typing **OR**	
*OAS 91	Word for Windows-I	1-3
OAS 157	Office Procedures	3
OAS 166	Records Management	2

Second Semester (Spring)

BUAD 45	Human Relations on the Job	3
BUAD 106	Business Mathematics	3
CIS 20	Access for Windows-I	1
OAS 52	Keyboarding II-Intermediate Typing	3
OAS 64	Computerized Ten-Key	0.5
OAS 92	Word for Windows-II	1
OAS 171	Proofreading	2

Highly Recommended Electives:

CIS 21	Access for Windows-II	1
OAS 93	Word for Windows-III	1
OAS 152	Speed, Accuracy, Refresher Typing	0.5

TOTAL UNITS FOR CERTIFICATE **23.5-25.5**

**Upon completion of OAS 51 with a grade of C or higher, OAS 91 is not necessary. If you are proficient in keyboarding, you may be able to take OAS 91 in lieu of OAS 51. See your counselor if you think you might qualify.*

Office Administration – Transcriptionist – Medical

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:

This program is designed to prepare the student for a position as an entry-level transcriptionist in a medical office, health care facility, or any office where transcriptionist skills are required.

Recommended Course Sequence:

First Semester (Fall)

BUAD 166	Business English	3
*OAS 51	Keyboarding I-Beginning Typing **OR**	
*OAS 91	Word for Windows-I	1-3
OAS 64	Computerized Ten-Key	0.5
OAS 158	Medical Office Procedures	3
OAS 166	Records Management	2
	General Education	3

Second Semester (Spring)

HEOC 110	Beginning Medical Terminology	3
OAS 52	Keyboarding II-Intermediate Typing	3
OAS 58	Word Processing Transcription	3
OAS 92	Word for Windows-II	1
OAS 171	Proofreading Skills	2
	Any Electives	3

Third Semester (Fall)

BUAD 45	Human Relations on the Job	3
BUAD 66	Business Communications	3
HEOC 111	Advanced Medical Terminology	3
OAS 93	Word for Windows-III	1
	General Education	3
	Any Electives	1.5-3.5

Continued on next page

Office Administration – Transcriptionist – Medical Degree continued:

Fourth Semester (Spring)

BIOL 5	Introduction to Human Biology	3
BIOL 6	Introduction to Human Biology Lab	1
OAS 53	Keyboarding III-Adv. and Technical Typing	3
OAS 159	Word Processing I - Med. Transcription	1.5
OAS 160	Word Processing II - Med. Trans.	1.5
	General Education	6

Highly Recommended Electives:

CIS 80	Internet Basics	1
OAS 63	Voice Recognition Software	1
OAS 152	Keyboarding for Speed and Accuracy	0.5

Associate in Science Degree Requirements	
Major	**41.5-43.5**
General Education	**12**
Electives	**4.5-6.5**
TOTAL	**60**

**Upon completion of OAS 51 with a grade of C or higher, OAS 91 is not necessary. If you are proficient in keyboarding, you may be able to take OAS 91 in lieu of OAS 51. See your counselor if you think you might qualify*

REQUIREMENTS FOR CERTIFICATE:

This program is designed to prepare the student for a position as a secretary or a transcriptionist in a medical office, or any office where transcriptionist skills are required.

Recommended Course Sequence:

First Semester (Fall)

BUAD 166	Business English	3
*OAS 51	Keyboarding I-Beginning Typing **OR**	
*OAS 91	Word for Windows-I	1-3
OAS 64	Computerized Ten-Key	0.5
OAS 158	Medical Office Procedures	3
OAS 166	Records Management	2

Second Semester (Spring)

BUAD 45	Human Relations on the Job	3
HEOC 110	Beginning Medical Terminology	3
OAS 52	Keyboarding II-Intermediate Typing	3
OAS 58	Word Processing Transcription	3
OAS 92	Word for Windows II	1
OAS 171	Proofreading Skills	2

Third Semester (Fall)

BUAD 66	Business Communications	3
HEOC 111	Advanced Medical Terminology	3
OAS 53	Keyboarding III-Adv. and Technical Typing	3
OAS 159	Word Processing I-Medical Trans.	1.5
OAS 160	Word Processing II-Medical Trans.	1.5

Highly recommended electives:

CIS 80	Internet Basics	1
OAS 93	Word for Windows-III	1
	TOTAL UNITS FOR CERTIFICATE:	**36.5-38.5**

**Upon completion of OAS 51 with a grade of C or higher, OAS 91 is not necessary. If you are proficient in keyboarding, you may be able to take OAS 91 in lieu of OAS 51. See your counselor if you think you might qualify.*

Real Estate

Provides training for people who wish to enter the real estate industry, including such fields as general real estate sales and brokerage financing, appraising and escrow. Because of its highly competitive nature, it is recommended that students seek advisement from a counselor to channel their efforts toward one of the specific areas. A real estate license will be required to enter certain fields of employment.

REQUIREMENTS FOR CERTIFICATE:
Students must complete the "CORE" courses and choose six (6) units from the "ELECTIVE" courses listed below.

Core Courses:

BUAD 6	Business Law	3
REAL 30	Real Estate Principles	3
REAL 31	Real Estate Practice	3
REAL 32	Real Estate Appraisal	3
REAL 33	Legal Aspects of Real Estate	3
REAL 34	Real Estate Finance	3
ACCT 101	Basic Accounting I **OR**	
REAL 135	Real Estate Economics	3
REAL 136	Introductions to Escrow **OR**	
REAL 138	Advanced Real Estate Appraisal	3
TOTAL UNITS FOR CORE:		**24**

Elective Courses: Select at least six (6) units for the Certificate

BUAD 8	Business Law	3
BUAD 41	Leadership and Supervision	3
BUAD 44	Investments	3
BUAD 66	Business Communications	3
BUAD 91	Principles of Management	3
BUAD 106	Business Mathematics	3
BUAD 166	Business English	3
CIS 1	Computer Literacy Workshop **OR**	
CIS 2	Introduction to Computer Science	3-4
ECON 1A	Principles of Economics - Micro	3
GEOG 7	California Geography	3
MKTG 70	Sales	3
MKTG 72	Advertising	3
MKTG 74	Principles of Marketing	3
OAS 51	Keyboarding I-Beginning Typing	3
	TOTAL UNITS FOR CERTIFICATE:	**30**

Residential Care Counselor Training

This program is temporarily suspended.
The program is designed to provide students with the needed expertise to work with individuals with special needs, including those in residential care.

REQUIREMENTS FOR CERTIFICATE:

HUSV 130	Princi	3
HUSV 131	Crisis	3
HUSV 132	Introd	3
HUSV 133	Resid	3
HUSV 134	Residential Care Practicum Seminar	2
HUSV 135	Counseling/Communication in Residential Care	3
	TOTAL UNITS FOR CERTIFICATE:	**17**

Residential Care Counselor Training Certificate Currently Not Offered

Retail Management

This program is designed to enable students to find entry-level positions in the retail selling areas as sales personnel.

REQUIREMENTS FOR CERTIFICATE:

ACCT 101	Basic Accounting I	3
BUAD 41	Leadership and Supervision	3
BUAD 45	Human Relations on the Job	3
BUAD 66	Business Communications	3
BUAD 91	Principles of Management	3
BUAD 106	Business Mathematics	3
CIS 1	Computer Literacy Workshop	3
MKTG 74	Principles of Marketing	3
MKTG 176	Retail Management	3
CMST 10	Interpersonal Communication	3
	TOTAL UNITS FOR CERTIFICATE:	**30**

Theatre Arts

REQUIREMENTS FOR CERTIFICATE:

Students must complete the courses listed below:		Units
THTR 1	Introduction to Theatre	3
THTR 8	Theatre Appreciation I	3
THTR 12	Acting for the Stage I	2
THTR 23/26	Mainstage Production I/II OR	3
THTR 70	Repertory Theatre 1	
THTR 30	Stagecraft I	3
THTR 41	Theatre Laboratory OR	3
THTR 74	Repertory Theatre – Technical	

In addition, students must complete:

Six units from the following Theory courses: THTR 5, 9, 13, 29, 31, 34, 37, 81	6
Four units from the following Practicum courses: THTR 24, 25, 42, 60, 61, 70, 74, 97, 98	4
TOTAL UNITS FOR CERTIFICATE:	**27**

REQUIREMENTS FOR ASSOCIATE IN ARTS DEGREE:

Students must complete the courses required for the Certificate. In addition, students fulfill the 33-39-unit general education pattern for CSU or IGETC.

Associate in Arts Degree Requirements	
Major	**23-24**
General Education	**33-39**
Electives	**0-4**
TOTAL	**60**

Transition Certificate for Students with Intellectual Disabilities

This curriculum is designed to provide an integrated ad inclusive educational option, in a post-secondary setting, structured to equip each student for a more meaningful style of participation in community, vocational and independent living settings.

REQUIREMENTS FOR CERTIFICATE:

ADAP 210	Career Development	1
ADAP 254	Adapted Computer Skills: Semester 1	1
ADAP 254	Adapted Computer Skills: Semester 2	1
ADAP 255	Human Awareness: Semester 1	2
ADAP 255	Human Awareness: Semester 2	2
ADAP 256	Reading for Life Skills: Semester 1	2
ADAP 256	Reading for Life Skills: Semester 2	2
ADAP 258	Math for Life Skills: Semester 1	2
ADAP 258	Math for Life Skills: Semester 2	2
	TOTAL UNITS FOR CERTIFICATE	**15**

Virtual Assistant Certificate

The Virtual Assistant Certificate program prepares the student to develop a business as a virtual assistant. This is a fairly new and emerging administrative profession where individuals work from their homes as independent contractors.

Recommended Course Sequence:

First Semester (Fall)

BUAD 85	Customer Service in the Workplace	.5
BUAD 166	Business English	3
CIS 83	Web Design Using Dreamweaver	2
OAS 30	Creating and Managing a Virtual Office	3

Second Semester (Spring)

BUAD 66	Business Communications	3
OAS 31	Marketing Yourself as a Virtual Assistant	3
OAS 80	Outlook	1
OAS 96	Integrated Computer Applications	2
	TOTAL UNITS FOR CERTIFICATE	**17.5**

Watershed Restoration Certificate

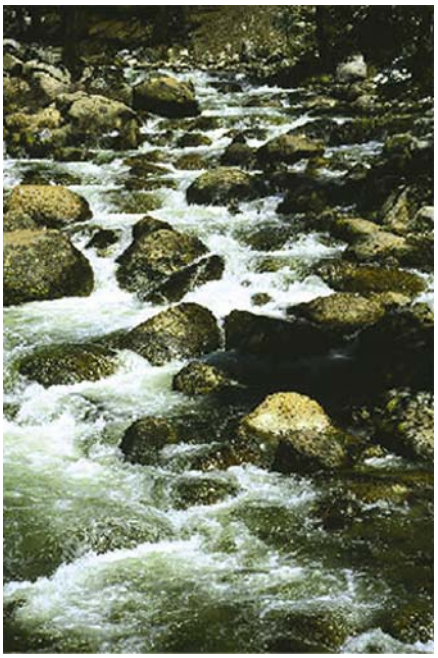
This certificate provides full-time students as well as professionals related to various agencies and industries an opportunity to obtain knowledge, skills and hands-on training related to the many facets of watershed restoration including regulations, mapping, water quality, data collection, recent advances in erosion control and bio-engineering applications and techniques, and heavy equipment operations.

REQUIREMENTS FOR CERTIFICATE:

CONS 46	Equipment Operations and Maintenance	3
CONS 47	Project Construction for Equipment Operations	3
AGNR 50	Natural Resources Measurements	4
AGNR 64	Water Resources	3
AGNR 66	Watershed Restoration	1
	TOTAL UNITS FOR CERTIFICATE	**14**

Water/Wastewater Treatment

This program is designed to provide entry-level training and upgrading for California water and wastewater public and private agency operators. A student seeking introduction into either water or wastewater fields would benefit by taking the entire course offerings. It is strongly recommended that students complete MATH 101-Basic Algebra and CHEM 2A-Introduction to Chemistry before completing the requirements of the program.



REQUIREMENTS FOR CERTIFICATE

WTT 177	Introduction to Wastewater Treatment	3
WTT 180	Introduction to Water Treatment Tech	3
WTT 181	Intermediate Water Treatment Technology	3
WTT 183	Intermediate Wastewater Treatment	3
WTT 184	Small Water Systems and Distribution	3
WTT 186	Advanced Wastewater Treatment	3
	TOTAL UNITS FOR CERTIFICATE	**18**

Welding Technology

The Welding Technology Program is designed to prepare students for positions in a variety of trades or service industries requiring technically trained and/or certified welders. The program is designed to prepare students for the opportunity to become certified welders under the standards set by the American Welding Society. Students can receive their certification by the American Welding Society in a variety of processes as part of the instructional program. The program is available in three formats:

Associate in Science Degree in Welding Technology
Certificates from Shasta College in Welding Technology
Certification by the American Welding Society as a certified welder

REQUIREMENTS FOR ASSOCIATE IN SCIENCE DEGREE:

Recommended Course Sequence:

First Semester (Fall)

ENGR 118	Blueprint and Specification Reading (Mechanical)	2
INDE 1	Career Planning for Industrial Technology	1
MATH 100	Technical Applications of Mathematics	3
WELD 70	Beginning Welding	3
WELD 170	Introduction to ARC Welding	3
WELD 174	Structural Steel MIG Welding	3

Second Semester (Spring)

DIES 48	Hydraulics	3.5
ENGL 190*	Reading and Writing II ** (see below for alternative)	4
WELD 171	Intermediate ARC Welding	3
WELD 173	Structural Steel Metal Fabrication	3
WELD 178	Pipe Welding Fundamentals	3

Third Semester (Fall)

WELD 175	TIG Welding	3
WELD 182	Advanced ARC Welding	1
WELD 184	Advanced GTAW (TIG) Welding	1
WELD 188	Advanced GMAW (MIG) Welding	1
	General Education	9

Fourth Semester (Spring)

WELD 186	Advanced Pipe Welding	2
	General Education	6
	Electives	4.5

Suggested Electives:

BUAD 41	Leadership and Supervision	3
CONS 53	Materials of Construction	3
DIES 30	Hydraulic Troubleshooting	1
ENGR 22	Engineering Graphics	2
IS 99	Independent Study	0.5-2
PHSC 1	Physical Science Survey	4
PHYS 101	Technical Physics	3
WELD 94	Worksite Learning for Welding Technology	1-4
WELD 176	GMAW (MIG) Welding	3

Associate in Science Degree Requirements	
Major	**39.5**
General Education	**15**
Electives	**5.5**
TOTAL	**60**

Can be used to fulfill General Education requirements.
The General Education requirement includes English Composition. Students may choose one of the following alternatives: ENGL 190 **OR a combination of ENGL 191, **and** two units selected from the following courses: ENGL 192, ENGL 193 or ENGL 194 for a total of 4 units.

Certificate continued on next page

Welding Technology continued:

REQUIREMENTS FOR CERTIFICATE (ONE-YEAR/FAST TRACK PROGRAM):

Recommended Course Sequence:

First Semester (Fall)

ENGR 118	Blueprint & Specification Reading	2
INDE 1	Career Planning	1
MATH 100	Technical Applications of Mathematics	3
WELD 70	Beginning Welding	3
WELD 170	Introduction to ARC Welding	3
WELD 174	Structural Steel MIG Welding	3

Second Semester (Spring)

DIES 48	Hydraulics	3.5
ENGL 190*	Reading and Writing II **(see below for alternative)	4
WELD 171	Intermediate ARC Welding	3
WELD 173	Structural Steel Metal Fabrication	3
WELD 175	TIG Welding	3
WELD 178	Pipe Welding Fundamentals	3
	TOTAL UNITS FOR FAST TRACK	**34.5**

Students may choose one of the following alternatives: ENGL 190 **OR a combination of ENGL 191, **and** two units selected from the following courses: ENGL 192, ENGL 193 or ENGL 194 for a total of 4 units.

REQUIREMENTS FOR AMERICAN WELDING SOCIETY CERTIFICATION:

In order to become certified by the American Welding Society, the following courses are offered for the student to increase his/her skill and knowledge. Certification by the American Welding Society is dependent upon the meeting of criteria as determined by the certified welding inspector. The completion of these courses is recommended, but does not guarantee certification by the American Welding Society.

WELD 182	Advanced ARC Welding	1
WELD 184	Advanced GTAW (TIG) Welding	1
WELD 186	Advanced Pipe Welding	2
WELD 188	Advanced GMAW (MIG) Welding	1

Chapter 6 – Course Descriptions

ACCOUNTING (ACCT)

See Also: BUAD, CIS, MKTG, OAS, REAL

ACCT 2 INTRODUCTION TO FINANCIAL ACCOUNTING – 3 Units (CAN# BUS 2) (CAN# BUS SEQ A)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A beginning accounting course for the student planning on transferring to a four-year university. Students will learn how accounting meets the information needs of various users of financial statements by developing and communicating information that is useful in decision making. The course is a prerequisite for ACCT 4, Introduction to Managerial Accounting. This course may be offered in a distance learning format.

ACCT 4 INTRODUCTION TO MANAGERIAL ACCOUNTING – 3 Units (CAN# BUS 4) (CAN# BUS SEQ A)
Prerequisite: A grade of C or higher in ACCT 2 (CAN BUS 2)
Advisory: A grade of C or higher in MATH 101 or Math Placement Level 3 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A continuation of ACCT 2. Topics for Managerial Accounting: Fundamental accounting concepts, classifications, cost systems, and budgeting for the analysis and report of accounting information for planning, control, and decision making. Required for transfer business and accounting majors needing one semester of managerial accounting. This course may be offered in a distance learning format.

ACCT 97 SPECIAL TOPICS IN ACCOUNTING – .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in accounting. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

ACCT 98 SPECIAL LAB TOPICS IN ACCOUNTING – .5-2 Units (P/NP Option)
Class Hours: 27-108 lab total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing topics/knowledge in accounting. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

ACCT 101 BASIC ACCOUNTING I – 3 Units
Class Hours: 54 lecture/18 lab total (when offered in the Distance Education format, hours will total 180)
A beginning course based on the double-entry bookkeeping system with an emphasis on a procedural approach. Topics include: accrual, cash, and modified cash basis of accounting systems; the accounting cycle, transaction analysis (rules of debits and credits), journalizing, posting, worksheets, preparation of financial statements, adjusting, closing, and reversing entries; combination journal; petty cash; bank reconciliations; special journals, accounts receivable, accounts payable; and basic payroll procedures. The course culminates with the student keeping a set of books using special journals for a small merchandising sole proprietorship for the last month of the fiscal year. This course is not transferable to a four-year college or university. This course may be offered in a distance learning format.

ACCT 102 BASIC ACCOUNTING II – 3 Units
Prerequisite: A grade of C or higher in ACCT 101 or ACCT 2
Class Hours: 54 lecture/18 lab total (when offered in the Distance Education format, hours will total 180)
A continuation of ACCT 101 maintaining the procedural approach. Topics include: accounting for notes payable, notes receivable, inventories, fixed assets, partnerships, corporations, long-term debt, and cash flows. The course culminates with the student keeping a manual set of books for a small merchandising partnership for the last month of the fiscal year. This course is not transferable to a four-year college or university. This course may be offered in a distance learning format.

ACCT 103 PC ACCOUNTING – 2 Units
Prerequisite: A grade of C or higher in ACCT 101 or ACCT 2
Advisory: Ability to type 25 wpm strongly recommended
Class Hours: 18 lecture/54 lab total
Accounting on microcomputers emphasizes the major areas of a computerized accounting system. This course provides the student with hands-on opportunities to determine procedure, analyze transactions, enter data and print reports and financial statements related to the General Ledger, Depreciation, Accounts Receivable, Accounts Payable, Payroll, Financial Statement Analysis, and Inventory Control.

ACCT 104 PAYROLL ACCOUNTING – 2 Units
Prerequisite: A grade of C or higher in ACCT 101 or ACCT 2; and BUAD 106 or Math Placement Level 3 or higher
Advisory: A grade of C or higher in OAS 64
Class Hours: 36 lecture/18 lab total (when offered in the Distance Education format, hours will total 126)
Payroll Accounting emphasizes the methods of computing wages and salaries, the methods of keeping records, and the preparation of government reports. This course is designed to provide training in the complexities of payroll accounting for vocational purposes. This course may be offered in a distance learning format.

ACCT 194 INCOME TAX – 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A basic course in income tax law intended to acquaint students with provisions of State and Federal Income Tax Law. It is designed for individuals or the small business owner wanting to become better acquainted with the handling and processing of income tax returns and recent tax laws and developments. This course may be offered in a distance learning format.

ADAPTIVE STUDIES (ADAP)

ADAP 100 COLLEGE SUCCESS FOR STUDENTS WITH DISABILITIES (formerly SPED 100) – 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 250 or English Placement Level 2 or higher
Class Hours: 36 lecture/54 lab total
Introduction and practice of college study skills and techniques to enhance student success. Emphasis of this course will be on self assessment for the student who has a disability, as well as information dissemination. Topics to be discussed will include study skills, college support services and programs, disability awareness, personal goals, the college experience and career exploration. Discussion will also include legal aspects of disability.

ADAP 101 ADAPTIVE ASSESSMENT AND COMPUTING (formerly SPED 101) – 1 Unit (P/NP Option)
Class Hours: 54 lab total
Adaptive Assessment and Computing is designed for students with learning disabilities that desire more understanding of the adaptive tools available for use with computer technology. After being individually assessed for learning disabilities and adaptive computer needs, each student will be learning ways of tailoring the computer to more effectively manage their specific learning disability. Note: This course may be repeated three times for a total of four enrollments since course content varies and skills are enhanced by supervised repetition and practice.

ADAP 210 CAREER PLANNING AND DEVELOPMENT – 1 Unit (P/NP Option)
Class Hours: 18 lecture total
This course is designed as a career development and planning option for transitioning students who have disabilities. The content of the course is designed to assist students in the processes of 1) Finding a career that coincides with their individual interests and talents, 2) Matching personality assets to career characteristics, 3) Training in the researching of career choices and employment opportunities, 4) Matching vocational skills to career choices, 5) Developing and initiating an education/career plan consisting of goals and options, 6) Identifying educational opportunities available to attain career goals, 7) Identifying the impact of paid work upon SSI and SSDI.

ADAP 240 ADAPTIVE DRAWING AND PAINTING (formerly SPED 240/SPED 240AD) – 1-2 Units (P/NP Option)
Class Hours: 54-108 lab total
A beginning to intermediate course exploring basic drawing, painting and expressive art techniques. This course will provide an introduction to basic art mediums such as: colored pens and pencils, graphite, pastels, ink, mixed media, watercolor and/or acrylics. It is designed to meet the developmental/intra-individual needs of learning disabled students and/or those with adaptive needs. Note: This class may be repeated three times for a total of four enrollments since course content varies and supervised repetition and practice enhance skills.

ADAP 254 ADAPTED COMPUTER SKILLS (formerly SPED 254) – 1 Unit (P/NP Option)
Class Hours: 54 lab total
Adapted Computer Skills is designed for students who have intellectual disabilities. Each student begins the course with an individualized evaluation of current needs and skills based upon the principles of self-determination. The typical skills covered include email and Internet access, the use of digital universal access, and word processing. The use of personal digital devices, such as watches, cell phones pagers and MP3 players will also be covered during the course. Note: This course may be repeated three times for a total of four enrollments as course content varies and skills are enhanced by supervised repetition and practice.

ADAP 255 HUMAN AWARENESS (formerly SPED 255) – 2 Units (P/NP Option)
Class Hours: 18 lecture/54 lab total
This course is being provided as a more focused curricular offering in social-sexual education skills for students who have intellectual disabilities. As opportunities for people with intellectual disabilities have broadened from the limited options available in segregated day programs, the skills necessary for independence in the community, such as those broadly categorized as self-protection, for example, are seen by educators in the field as essential. The aim of this course is to prepare students to tackle the rights as well as the responsibilities of life and to assist individuals to achieve an interdependent balance that is essential in order to enjoy a meaningful quality of life. The course will cover several related areas of the domestic domain over the course of four semesters: 1) Self-awareness/self-esteem, 2) Health and hygiene, 3) Self-protection, and 4) Relationships. Note: Since the subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

ADAP 256 READING FOR LIFE SKILLS (formerly SPED 256) – 2 Units (P/NP Option)
Class Hours: 18 lecture/54 lab total
This course is designed to meet the vocational preparation needs of students who have intellectual disabilities. The objectives are individually prepared with each student. The student who is preparing for employment in the near term should consider the course. Instruction may include familiarity with educational symbols, sight vocabulary, and frequently encountered public signs, word attack skills and reading comprehension. Note: This class may be repeated three times for four enrollments as skills and supervised repetition and practice enhance proficiencies.

ADAP 258 MATHEMATICS FOR LIFE SKILLS (formerly SPED 258) – 2 Units (P/NP Option)
Class Hours: 18 lecture/54 lab total
The course is designed to meet the needs of the student with significant cognitive deficits for independent living and vocational preparation training. The objectives of the course are specifically designated in the Student Educational Contract (SEC) that is individually prepared for each student. The course should be considered for the student who is preparing for employment and independent living in the near term. Training may include personal budget, measurements, time clocks and scheduling, interpreting pay stub information, determining the effects of supported employment on SSI payments, calculator use, and support for regular education course work in math. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice and amount to an accommodation to student learning styles.

ADAP 297 SPECIAL TOPICS IN SPECIAL EDUCATION (formerly SPED 297) – .5-2.0 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with special education. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

ADAP 298 SPECIAL TOPICS IN SPECIAL EDUCATION (formerly SPED 298) – 0.5-2.0 Units (P/NP Option)
Class Hours: 27-108 lab total
This course is designed to give students an opportunity to explore a variety of topics dealing with special education. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

ADAP 373 COMMUNITY INVOLVEMENT (formerly SPED 373) – 0 Units (P/NP Option)
Note: This course is designed specifically for adults with developmental disabilities who are able to function independently in a group setting
Class Hours: 27-108 lab total
This course is for adults with developmental disabilities who desire to participate in service organizations within their communities. Students will nominate and elect class officers, who will conduct each meeting. Students will participate in meetings, either as officer or general member, using simplified Robert's Rules of Order. With guidance of the instructor, students will determine an appropriate project (i.e., to put on a spaghetti dinner fundraiser for Special Olympics), break the project into specific tasks, volunteer for the tasks, and complete the project. Note: This course is designed specifically for adults with developmental disabilities who are able to function independently in a group setting This class may be repeated three times for a total of four enrollments since course content varies and supervised repetition and practice enhance skills.

ADAP 377 VOCATIONAL EDUC. FOR PERSONS WITH DISABILITIES (formerly SPED 377) –0 Units (P/NP Option)
Class Hours: 27-270 lab total
This course is for adults with developmental disabilities who attend a site-based vocational workshop on a regular basis. This course will teach students the fundamentals of specific jobs, such as teacher's aide, mailroom clerk, and/or ground maintenance. This course will also teach students general information regarding finding and keeping a job, such as filling out applications, appropriate behaviors, and safety. This course will also cover general information that could be applied to many other jobs, i.e., telling time, handling money, measurement (both linear and volume), and avoiding illness. This course is designed specifically for adults with developmental disabilities who are able to function independently in a group setting.

ADMINISTRATION OF JUSTICE (ADJU)

ADJU 10 INTRODUCTION TO ADMINISTRATION OF JUSTICE – 3 Units (P/NP Option) (CAN# AJ 2)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
The history and philosophy of administration of justice in America. Recapitulation of the system, identifying the various sub-systems, role expectations, and their inter-relationships; theories of crime, punishment, and rehabilitation ethics, education and the training for professionalism in the system. This course may be offered in a distance learning format. Required for Administration of Justice majors.

ADJU 11 TRAFFIC CONTROL AND INVESTIGATION – 3 Units (P/NP Option)
Class Hours: 54 lecture total
A study of the vehicle code of the State of California as it pertains to Law Enforcement Officers and discussions of leading court cases. Covers Vehicle Code definitions, organization of the D.M.V. and C.H.P., registration, licensing, and Rules of the Road covering all moving vehicle violations, parking, pedestrian and equipment violations. Also, a study of the principles and practices of accident investigation, including selective enforcement procedures and data use, hit-and-run accidents, determination of speed from skid marks.

ADJU 15 CONCEPTS OF CRIMINAL LAW – 3 Units (P/NP Option) (CAN# AJ4)
Class Hours: 54 lecture total
Historical development and philosophy of law. Definitions, concepts, specific Penal Code sections and their application to the criminal justice system. Principles of constitutional, federal, state and civil laws as they apply to and affect law enforcement; rights, duties and limitation of officers and citizens structure, definition, and case study of applicable sections of the Health and Safety Code and other related codes. Required for Administration of Justice majors.

ADJU 16 LEGAL ASPECTS OF EVIDENCE – 3 Units (P/NP Option) (CAN# AJ 8)
Class Hours: 54 lecture total
Origin, development and philosophy of evidence; kinds and degrees of evidence, and rules governing admissibility; judicial decisions interpreting individual rights, search and seizure, the case study approach. Required for Administration of Justice majors.

ADJU 17 PRINCIPLES AND PROCEDURES OF THE JUSTICE SYSTEM – 3 Units (P/NP Option)
Class Hours: 54 lecture total
The study of California and federal courts systems, detailed analysis of all aspects of the criminal justice system, especially identifying functions and relationships between the various sub-systems procedures from incident to final disposition; function of constitutional, federal, state, and civil law as it applies to and affects criminal justice. Required for Administration of Justice majors.

ADJU 18 COMMUNITY RELATIONS – 3 Units (P/NP Option)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
An in-depth exploration of the roles of the Administration of Justice practitioners and their agencies. Through interaction and study the student will become aware of the interrelationship and role expectations among the various agencies and the public. Principal emphasis will be placed upon the professional image of the system of justice administration and the development of positive relationships between members of the system and the public. Required for Administration of Justice majors. This course may be offered in a distance education format.

ADJU 20 PRINCIPLES OF INVESTIGATION – 3 Units (P/NP Option) (CAN# AJ 8)
Class Hours: 54 lecture total
The study of basic principles of all types of investigation utilized in the justice system. Coverage will include human aspects in dealing with the public, specific knowledge necessary for handling crime scenes; interviews, evidence, surveillance, follow-up, technical resources and case preparation. Required for Administration of Justice majors.

ADJU 21 POLICE FIELD OPERATIONS – 3 Units (P/NP Option)
Class Hours: 54 lecture total
Exploration of theories, philosophies, and concepts related to the role expectations of the line enforcement officer. Emphasis is placed upon the patrol, traffic, and public service responsibilities and their relationship to the Administration of Justice System.

ADJU 22 JUVENILE PROCEDURES – 3 Units (P/NP Option)
Class Hours: 54 lecture total
The organization, functions and jurisdiction of juvenile agencies; the processing and detention of juveniles; juvenile case disposition; juvenile statutes and court procedures.

ADJU 23 CAREER PLANNING FOR ADMINISTRATION OF JUSTICE – 3 Units (P/NP Option)
Class Hours: 54 lecture total
Career Planning for Administration of Justice is designed to acquaint students with current employment techniques and standards in multiple areas of the Administration of Justice field. Students will be exposed to multi-agency recruiting, testing and hiring practices. Students will learn to identify personal problematic areas regarding these practices and will be instructed as to how to seek out and obtain possible solutions to these problems.

ADJU 24 MULTI-CULTURAL ISSUES IN LAW ENFORCEMENT – 3 Units (P/NP Option)
Class Hours: 54 lecture total
This class identifies cultural diversity issues related to law enforcement. Specific areas such as history, current make-up, value of diversity, recognition and handling are discussed. Law enforcement issues relative to sexual harassment, victimology and crisis intervention are covered. Course satisfies P.O.S.T. Basic Academy Part 1 curriculum requirements.

ADJU 25 SUBSTANTIVE LAW – 3 Units (P/NP Option)
Class Hours: 54 lecture total
An in-depth study of the substantive laws commonly encountered by the municipal, county, or state police officer or investigator or other criminal justice employee. The scope of the course includes misdemeanor and felony violations of the criminal statutes.

ADJU 26 COURTROOM TESTIMONY AND REPORT WRITING – 3 Units (P/NP Option)
Class Hours: 54 lecture total
Provides practical instruction and experience in the proper techniques of report writing and courtroom presentation of evidence. Major emphasis will include the correct writing process, spelling, main elements of a report, report content as well as important aspects of courtroom testimony. Required for Administration of Justice majors.

ADJU 30 WILDLIFE LAW ENFORCEMENT - 3 Units (P/NP Option)
Class Hours: 54 lecture total
Students will develop an understanding of the practice of wildlife enforcement. Students will analyze various wildlife enforcement situations and learn to apply management techniques to properly and safely utilize our wildlife populations.

ADJU 40 INSTITUTIONAL AND FIELD SERVICES – 3 Units (P/NP Option)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course shall cover the philosophy and history of correctional services. A survey of the correctional sub-systems of institutions by type and function, probation concepts, and parole operations is presented. A discussion of correctional employee responsibilities as applied to offender behavior modification via supervisory control techniques is discussed, as well as, rehabilitation goals as they affect individual and inmate cultural groups in both confined and field settings. This course may be offered in a distance learning format.

ADJU 41 FUNDAMENTALS OF CRIME AND DELINQUENCY – 3 Units (P/NP Option)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
An introduction to major types of criminal behavior, roles and careers of offenders, factors which contribute to the production of criminality or delinquecy; methods used in dealing with violators in the justice system; the changing roles of police, courts, and aftercare process of sentence, probation, prisons,and parole; changes of the law in crime control and treatment processes. This course may be offered in a distance learning format.

ADJU 42 INTERVIEWING AND COUNSELING – 3 Units (P/NP Option)
Class Hours: 54 lecture total
Introduction to approaches of behavior modification through interviewing and counseling. An overview of the techniques available to entry-level practitioners in corrections, counseling and interviewing. Creates an awareness of advanced methods utilized by professional counselors. Traces the development of positive relationships between the client and corrections personnel.

ADJU 60 CHILD ABUSE ASSESSMENT AND REPORTING (formerly ADJU 150S) – .5 Unit (P/NP Only)
Class Hours: 9 lecture total
Designed to provide training for those who are required to have child abuse assessment and reporting training such as child care and health care workers, social workers, criminal justice workers, marriage and family and child counselors. It will cover child abuse laws as they pertain to the detection and reporting of abuse and assessment. It will provide information on prevention, counseling, interviewing, and referral. This would also be appropriate for teachers, foster parents, and others who work with children.

ADJU 94 ADMINISTRATION OF JUSTICE WORKSITE LEARNING – 1-4 Units (P/NP Option)
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

ADJU 100 P.C. 832 ARREST COURSE – 2 Units (P/NP Option)
Notes:
This course does not include P.C. 832 Firearms Training. Students wishing to receive such training need to concurrently enroll in ADJU 102.
Students taking this course may be required to submit fingerprint card to DOJ and pay a substantial fee for a background check. Instructor will explain requirements at first class session.
The ADJU 100 course requires the use of POST workbooks which will cost the student approximately $100
If you intend to continue in the POST basic academy Modular format this course is not required. You should enroll directly in ADJU 131 Regular Basic Course Modular Format Level III Academy.
Class Hours: 40 lecture total
Designed to satisfy the curriculum standards of the Commission on Peace Officer Standards and Training as required by Penal Code Section 832 for peace officers; includes laws of arrest, search and seizure, methods of arrest, and discretionary decision-making, mandatory for all peace officers who do not possess a basic certificate awarded by the Commission on Peace Officer Standards and Training.

ADJU 102 P.C. 832 FIREARMS (formerly ADJU 110) – .5 Unit (P/NP Only)
Corequisite: Students must be concurrently enrolled in, or have completed ADJU 100 with a grade of C or higher.
Note: Students taking this course must submit and pass the Department of Justice fingerprint check – requires fees.
Class Hours: 27 lab total
Course meets curriculum and competency objectives for the firearms portion of the Commission on Peace Officer Standards and Training (P.O.S.T.) P.C. 832 training standard. Students will receive training on use and safety of firearms. They will also be required to fire a handgun and meet an accuracy standard established by P.O.S.T.

ADJU 103 COMMUNITY RESOURCES AND CRISIS INTERVENTION – 2 Units (P/NP Option)
Class Hours: 36 lecture total
The course will familiarize students with community health, education, and social service resources as related to identified social problems. In-depth instruction will be provided regarding crisis communication skills including active listening, community referrals, and problem-solving. Students will be able to communicate in crisis situations and identify appropriate referrals through a problem-solving perspective.

ADJU 106 SEXUAL ASSAULT AND DOMESTIC VIOLENCE EDUCATION & TRAINING (P/NP Option) – 4 Units
Class Hours: 72 lecture total
This course covers the history, causes and dynamics of domestic violence and sexual assault. It will also cover existing laws and regulation in California with regards to sexual assault and domestic violence. Incident impact on individuals, family structure and the community will be discussed. The course is specifically designed to provide training to those who may become involved in crisis intervention and sexual assault and domestic violence victim advocacy, as well as those pursuing a career in law enforcement, education or social services.

ADJU 131 REGULAR BASIC COURSE MODULAR FORMAT LEVEL III ACADEMY – 7 Units
Notes:
1. Students taking this course may be required to submit fingerprint card and DOJ and pay a substantial fee for a background check. Instructor will explain requirements at first class session.
2. This course now requires the use of POST workbooks which will cost the student approximately $100.
3. This course requires a material fee (ammunition) of approximately $100.
Class Hours: 108 lecture (includes 7 hours written)/54 lab total
A course certified by the Commission on Peace Officer Standards and Training that meets the regular basic training requirements of a Modular Level III Regular Basic Academy. This is a regular basic course that includes training in law, patrol procedures, criminal investigation, arrest methods, juvenile procedures, vehicle operations, discretionary decision-making, community relations, and firearms.

ADJU 132 REGULAR BASIC COURSE MODULAR FORMAT LEVEL II ACADEMY – 8 Units
Limitation on Enrollment: Student must have successfully completed a P.O.S.T. certified Module 3 course within the last three years.
Class Hours: 90 lecture/162 lab total
A course certified by the Commission on Peace Officer Standards and Training that meets the regular basic training requirements of a Modular Level II Regular Basic Academy. This is an advanced course that includes training in law, patrol procedures, criminal investigation, arrest methods, juvenile procedures, vehicle operations, discretionary decision-making, community relations, and firearms. State mandates require that students successfully complete Modular Level III prior to enrolling in this course.

ADJU 197 SPECIAL TOPICS IN ADMINISTRATION OF JUSTICE – .5-3 Units
Class Hours: 9-54 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge and new laws in Administration of Justice. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for Administration of Justice majors; open to anyone with an interest in the topic. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

ADJU 312 HANDGUN SAFETY RECERTIFICATION – 0 Units
Note: Course does not include range instruction.
Class Hours: 6 hours total
Designed for handgun owners who wish to remain current regarding the legal and moral aspects of handgun usage. State law now requires CCW renewal applicants to receive a minimum of four hours training every two years.

AG – GENERAL AGRICULTURE (AG)

AG 1 CAREER PLANNING FOR AGRICULTURE (formerly ENVR 1) - 2 Units (P/NP Option)
Class Hours: 36 lecture total
Career opportunities and requirements in Agriculture, Equine Science and Veterinary Technology will be examined. Students will learn how to apply for jobs. Traits of highly successful people will be explored by formal presentation and interactive assignments. Environmental awareness and interrelationships with career success will be covered.

AG 6 CAREER PLACEMENT – AGRICULTURE (formerly AGRI 6) – 1 Unit (P/NP Option)
Note: Designed for students concurrently completing or who have completed the core course requirements in a vocational major.
Class Hours: 18 lecture total
This class will assist students in getting the best possible employment upon graduation. Students will learn interview techniques, will develop an employment portfolio, and will contact several prospective employers. Life goals will be developed complete with a plan of action. This class is required for all agriculture majors.

AG 9 AGRICULTURE AND NATURAL RESOURCES LEADERSHIP (formerly ENVR 9) - 1 Unit (P/NP Option)
Note: Required field trips
Class Hours: 9 lecture/27 lab total
This course is designed to develop leadership qualities in students. ”Hands-on” techniques will be used to facilitate problem solving, cooperative work ethics, developing initiative, managing and organizing information, flexible thinking and effective questioning. Practical experience in conducting business as a group will be gained by participation. Note: This course may be repeated three times for a total of four enrollments since course content varies and skills are enhanced by supervised repetition.

AG 58 STUDENT ENTERPRISE PROJECTS (formerly AGRI 58) – 1-4 Units
Limitation on Enrollment: Student must have a sponsoring instructor from the Natural Resources, Industry and Public Safety Division.
Note: Student projects are subject to approval by a project evaluation committee.
Class Hours: 9 lecture/27-189 lab total
Selection and completion of a management/production enterprise project under faculty supervision. Each student will be required to develop a project plan, timeline, budget and contract with the sponsoring instructor.

AG 94 AGRICULTURE WORKSITE LEARNING (previously AGRI 94) - 1-4 Units
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on-the-job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

AG 97 SPECIAL TOPICS IN AGRICULTURE (formerly AGRI 97) – .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in agriculture. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for agriculture, natural resources, and environmental horticulture majors; open to anyone with an interest in the topic. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

AG 98 SPECIAL TOPICS IN AGRICULTURE – LAB SKILLS (formerly AGRI 98) – .5-2 Units (P/NP Option)
Class Hours: 27-108 lab total
This course is designed to give students an opportunity to explore a variety of topics in a lab setting dealing with changing knowledge in agriculture. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for agriculture, natural resources, and environmental horticulture majors; open to anyone with an interest in the topic. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

AG 118 STOCK DOG TRAINING (formerly AGRI 118) – 1 Unit (P/NP Option)
Note: Dogs must have proof of valid rabies vaccination and be controlled on a leash.
Class Hours: 9 lecture/27 lab total
This course is designed to familiarize students with basic techniques of handling and training working stock dogs in preparation for ranch work and trailing. Demonstrations and hands-on involvement will include: working characteristics of different stock dog breeds, proper handler positioning, and basic obedience related to the working stock dog. Note: Since skills are enhanced by supervised practice and repetition, this course may be repeated one time for a total of two enrollments.

AG 197 SPECIAL TOPICS IN AGRICULTURE (formerly AGRI 197) – .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in agriculture. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for agriculture, natural resources, and environmental horticulture majors; open to anyone with an interest in the topic. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

AG – AGRICULTURE BUSINESS (AGAB)

AGAB 51 AGRICULTURE RECORDS AND ANALYSIS (formerly AGRI 51) – 3 Units (P/NP Option) (CAN# AG-AB 28)
Class Hours: 54 lecture total
A study of the elements of agricultural record-keeping and their analysis for maximum efficiency. Course includes compiling a depreciation record, financial statement, simple accounting, and obtaining credit.

AGAB 54 AGRICULTURE ECONOMICS – 3 Units (formerly AGRI 54) (P/NP Option) (CAN# AG-AB 24)
Class Hours: 54 lecture total
An introduction to economic and business principles as they relate to resource management. The focus of the course will be to relate economic theories and principles to applied agri-business and resource management problem solving. Student involvement in practical marketing, financing, promotions, business analysis, retailing, or some other practical economic problem will be required.

AG – ANIMAL SCIENCE (AGAS)

AGAS 10 LIVESTOCK SELECTION (formerly AGRI 10) – 3 Units (P/NP Option) (CAN# AG-AS 48)
Note: Field trips to area ranches may be taken.
Class Hours: 36 lecture/54 lab total
A course designed to evaluate and select desirable production livestock. Animal genetics, performance records, grading and meat quality characteristics will be discussed as important tools in selection. The majority of lab time will be spent judging live animals.

AGAS 11 FEEDS AND FEEDING (formerly AGRI 11) – 3 Units (P/NP Option) (CAN# AG-AS 32)
Class Hours: 54 lecture total
A study of the digestive physiology of farm animals; their utilization of the basic nutrients, feedstuffs, and feed additives. Common feeds in Northern California will be used to blend practical farm rations for beef, dairy, sheep, swine and horses. Time will be allotted to cost analysis of commercial feeds and least-cost computer ration programs.

AGAS 15 ARTIFICIAL INSEMINATION (formerly AGRI 15) – 1 Unit (P/NP Option)
Class Hours: 9 lecture /27 lab total
A course to familiarize students with basic techniques of Artificial Insemination in cattle. Demonstration and hands-on involvement will include: synchronization, handling of semen, livestock handling, and breeding techniques.

AGAS 17 BEEF PRODUCTION (formerly AGRI 17) – 2 Units (P/NP Option) (CAN# AG-AS 8)
Note: Required field trips will be taken to various beef production operations in northern California and southern Oregon. These field trips are intended to expose students to every facet of beef production from cow/calf to packer.
Class Hours: 27 lecture/27 lab total
Beef production in the community, state, and nation, breeds and breeding, care and management, market grades and classes, judging and selection, principles and practices of purebred commercial and feedlot production including housing, equipment and recordkeeping.

AGAS 19 PRINCIPLES OF ANIMAL SCIENCE (formerly AGRI 19) - 3 Units (P/NP Option) (CAN# AG-AS 6)
Class Hours: 36 lecture/54 lab total
An introduction to the principles of animal science presented in terms of an animal's biological cycle or production. Topics will include basic nutrition, genetics, reproduction, and animal health relating to domestic farm animals. In addition to investigating modern production practices, the impact of animal agriculture upon mankind and the environment will also be considered. The weekly lab session will be devoted to investigating the basic management practices associated with each livestock species.

AGAS 30 LIVESTOCK PRODUCTION – 3 Units
Class Hours: 36 lecture/54 lab total
This course is a study of the principles and practices of purebred and commercial swine, sheep and beef cattle production throughout California, the United States and the World. Emphasis will be placed on the importance of breeds, breeding principles, selection, nutrition, environmental management, health, marketing and record keeping to ensure scientifically-based management decisions and consumer product acceptance.

AGAS 117 SHEEP SHEARING (formerly AGRI 117) – 1 Unit (P/NP Option)
Note: Students must be able to physically restrain and control large sheep up to 150 pounds.
Class Hours: 9 lecture/27 lab total
A course designed to introduce and improve sheep shearing techniques by the New Zealand method. An increasing level of proficiency will be expected in shearing, tagging, blade grinding, equipment maintenance, and wool handling. Students will shear 30-100 head of sheep.

AG – ENVIRONMENTAL HORTICULTURE (AGEH)

AGEH 3 CAREER PLANNING FOR ENVIRONMENTAL HORTICULTURE (formerly HORT 3, AGRI 3) - 1 Unit
Class Hours: 18 lecture total
This course addresses Environmental Horticulture as a career and gives a preview of nursery, florist, and landscape industries. There will be discussion concerning requirements for the vocational A.A. degrees, certificate programs, and transfer to four-year degree colleges. It will also cover how best to apply for the job and how the student can prepare as a well-qualified candidate. The course will include discussion by area employers.

AGEH 7 HORTICULTURE CAREERS SURVEY AND PLACEMENT (formerly HORT 7, AGRI 7) - 1 Unit (P/NP Option)
Note: One required four-day, three-night field trip
Class Hours: 9 lecture/27 lab total
This class is designed to give the student an overview of the California horticulture industry and how to obtain a job within the industry. This class includes a four-day, three-night tour of nurseries, florists, botanical gardens, universities and much more. On the tour, students will learn about many of the different careers the horticulture industry offers, meet perspective employers, and learn valuable job-seeking skills. Students will develop a career portfolio, life goals and plan of action. This class is required for all environmental horticulture majors.

AGEH 22 NURSERY PRACTICES AND PLANT PROPAGATION (formerly HORT 22, HORT 32A) - 2 Units
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher; and a grade of C or higher in MATH 220, or Math Placement Level 1 or higher
Class Hours: 18 lecture/54 lab total
This course is required for all Environmental Horticulture majors. The methods and principles used in the propagation of plants, including both sexual and asexual propagation will be demonstrated and practiced. Other topics related to successful plant propagation such as soil preparation, transplanting and potting, disease and insect control, irrigation, and fertilization will also be covered.

AGEH 23 NURSERY PRACTICES AND MANAGEMENT (formerly HORT 23, HORT 32B) - 2 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher; and a grade of C or higher in MATH 220, or Math Placement Level 1 or higher
Class Hours: 18 lecture/54 lab total
This is required for all Environmental Horticulture majors. This hands-on course will cover production schedules, marketing strategies, customer service, product displays, greenhouse and nursery management and much more. Best practices and economic feasibility will be emphasized.

AGEH 26 PLANT PROTECTION (formerly HORT 26, AGRI 26) - 3 Units (P/NP Option)
Class Hours: 36 lecture/54 lab total
Weeds, insects and diseases as related to the production and culture of agricultural and horticultural commodities will be presented. A basic understanding, both physiological and morphological, of these plant pests and their control is the emphasis of the class. Pesticide safety is also emphasized and students are required to take the state certification test for application of pesticides. This course is required for all horticulture majors.

AGEH 27 PLANT IDENTIFICATION AND TAXONOMY OF EVERGREEN TREES, SHRUBS AND GROUND COVERS (formerly HORT 27) - 1 Unit (P/NP Option)
Class Hours: 18 lecture/12 lab total
This is a course which will familiarize the student with approximately 65 commonly used landscape plants. The plants' taxonomic description, landscape uses, and culture will be emphasized. This is the first of three plant identification courses students working toward an AA or AS degree in Environmental Horticulture are required to take. AGEH 27, AGEH 28 and AGEH 29 are a series and may be taken in any order.

AGEH 28 PLANT IDENTIFICATION AND TAXONOMY OF DECIDUOUS TREES, SHRUBS AND GROUND COVERS (formerly HORT 28) - 1 Unit (P/NP Option)
Class Hours: 18 lecture/12 lab total
This is a course which will familiarize the students with approximately 65 commonly used landscape plants. Each plant's taxonomic description, land uses, and culture will be emphasized. This is the second of three plant identification courses students working toward an AA or AS Degree in Environmental Horticulture are required to take. AGEH 27, AGEH 28 and AGEH 29 are a series and may be taken in any order.

AGEH 29 PLANT IDENTIFICATION AND TAXONOMY OF TREES, SHRUBS AND GROUND COVERS (formerly HORT 29) - 1 Unit (P/NP Option)
Class Hours: 18 lecture/12 lab total
This is a course which will familiarize the student with approximately 65 commonly used landscape plants. The plant's taxonomic description, landscape uses, and culture will be emphasized. This is the third of three plant identification courses students working toward an AA or AS degree in Environmental Horticulture are required to take. AGEH 27 and AGEH 28 are the first and second in the series, but these courses can be taken in any order. The scheduling of these classes will reflect plant phenology. This course will emphasize flower structure as a means of identification.

AGEH 31 LANDSCAPE IRRIGATION (formerly HORT 31, AGRI 31) - 3 Units (P/NP Option) (CAN# AG-EH 44)
Advisory: A grade of C or higher in MATH 100, or Math Placement Level 3 or higher; and a grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Class Hours: 36 lecture/54 lab total
This is a study of water hydraulics, irrigation systems design and installation procedures and irrigation scheduling. Techniques in the operation and maintenance of irrigation systems will also be presented. Emphasis will be placed on residential design and installation, but commercial design and installation will be covered. This course is required for all Environmental Horticulture majors.

AGEH 31.1 LANDSCAPE IRRIGATION – DESIGN (formerly HORT 31.1) - 1 Unit (P/NP Option)
Advisory: A grade of C or higher in MATH 100, or Math Placement Level 3 or higher; and a grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Class Hours: 12 lecture/18 lab total
Modular delivery of course content of AGEH 31. This is a study of irrigation systems design, water hydraulics and plant/soil/water relationships. Emphasis will be placed on residential design as well as commercial design. Completion of AGEH 31.1, AGEH 31.2 and AGEH 31.3 is the equivalent of AGEH 31. This course is required for all Environmental Horticulture majors.

AGEH 31.2 LANDSCAPE IRRIGATION – INSTALLATION (formerly HORT 31.2) - 1 Unit (P/NP Option)
Advisory: A grade of C or higher in MATH 100, or Math Placement Level 3 or higher; and a grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Class Hours: 12 lecture/18 lab total
Modular delivery of AGEH 31. This class covers the basics in reading blueprints, preparing a bill of materials and installing an irrigation system. Emphasis will be placed on residential installation but commercial installation will be covered. This course is required for all Environmental Horticulture majors. Completion of AGEH 31.1, AGEH 31.2 and AGEH 31.3 is the equivalent to AGEH 31.

AGEH 31.3 LANDSCAPE IRRIGATION – TROUBLESHOOT AND SCHEDULE (formerly HORT 31.3) - 1 Unit (P/NP Option)
Advisory: A grade of C or higher in MATH 100, or Math Placement Level 3 or higher; and a grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Class Hours: 12 lecture/18 lab total
Modular delivery of AGEH 31. This is a study of irrigation system operation and scheduling. Techniques in the operation and maintenance and troubleshooting of irrigation systems will be presented. This course is required for all Environmental Horticulture majors. Completion of AGEH 31.1, AGEH 31.2 and AGEH 31.3 is the equivalent of AGEH 31.

AGEH 33 ENVIRONMENTAL HORTICULTURE (formerly HORT 33, AGRI 33) - 3 Units (P/NP Option) (CAN# AG-EH 4)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This class explains the basics of botany for gardeners and horticulturists. It is an examination of the scientific concepts on which plant growth is based in varied environments. This includes the interactions that result when introducing exotic species of plants into foreign environments, the relationship of plants to their natural environments and how man manipulates plants and environments to serve his needs. This course is recommended for first-year Environmental Horticulture Majors. This course may be offered in a distance-learning format.

AGEH 34 BEGINNING FLORAL DESIGN – FALL FLOWERS (formerly HORT 34, HORT 34AB) - 2 Units (P/NP Option)
Note: Students must provide those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 18 lecture/54 lab total
Course introduces the beginning floral design student to the principles and techniques of flower arranging. The subject matter includes a blend of art, science, business, and career in preparation for entering the floral industry and related areas. Fall flowers and fall/winter holiday arrangements will be emphasized.
Note: This course may be repeated one additional time for a total of 2 course enrollments since course content varies and skills are enhanced by supervised repetition and practice.

AGEH 35 LANDSCAPE DESIGN (formerly HORT 35, AGRI 35) - 3 Units (P/NP Option) (CAN# AG-EH 36)
Class Hours: 36 lecture/54 lab total
This course is a requirement for all Environmental Horticulture majors. This course emphasizes the process leading to the development of the residential design. The incorporation of design principles i.e. unity, rhythm, repetition, balance, etc. and how the principles are used to create a functional and pleasing composition with plant material and other landscape elements will be stressed. Emphasis is on residential design, both rural and suburban.

AGEH 36 FLORAL DESIGN FOR WEDDINGS AND SPECIAL OCCASIONS (formerly HORT 36) - 2 Units (P/NP Option)
Note: Students must provide those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting
Class Hours: 18 lecture/54 lab total
This course provides instruction in floristry skills pertaining to weddings and flowers to wear and carry. This course will provide the student with the skills necessary for higher entry-level jobs in commercial floristry. Some subjects to be covered in this course include bouquets, corsages, and body flowers, wedding and reception decoration, including altar designs, candelabra, cake and table centerpieces.

AGEH 37 NURSERY AND FLORIST MANAGEMENT (formerly HORT 37, AGRI 37) - 3 Units (P/NP Option)
Class Hours: 54 lecture total
The study of retail and wholesale florist and florist/nursery operations including area within mass markets. Specific areas that will be covered are management problems, public relations, advertising, financing, wire service, sales, display and merchandising.

AGEH 38 LANDSCAPE AND TURF MANAGEMENT (formerly HORT 38, AGRI 38) - 3 Units (CAN# AG-EH 28)
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher; and a grade of C or higher in MATH 220, or Math Placement Level 1 or higher
Class Hours: 36 lecture/54 lab total
This is a required course for Environmental Horticulture majors. The installation of lawns, groundcovers, shrubs and trees will be covered. The practices of pruning, trimming, mowing, watering, fertilizing, and pesticide application as applied to landscape management of home, parks, highways, and how to estimate and bid in all areas of landscape management will also be covered.

AGEH 39 TROPICAL FLORAL DESIGN (formerly HORT 39) – 1.5 Units (P/NP Option)
Advisory: A grade of C or higher in AGEH 34 or AGEH 44
Note: Students must provide those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 27 lecture/9 lab total
This course covers all aspects of floral design as it relates to tropical flowers. Students will learn to make corsages, formal/linear design, leisure and party decorations from tropical flowers.

AGEH 40 INTERMEDIATE FLORAL DESIGN (formerly HORT 40, HORT 34CD) - 2 Units
Prerequisite: A grade of C or higher in AGEH 34 or AGEH 44
Note: Students must provide those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 18 lecture/54 lab total
Instruction in floristry skills related to contemporary styles of design for all occasions, wedding, and sympathy work. The application of techniques for mass and line style designs including Flemish, Oriental, parallel, contemporary, free-style, vegetative, and interpretive will be addressed. Note: This course may be repeated once for a total of two enrollments since the course content varies and skills are enhanced by supervised repetition and practice.

AGEH 41 SELECTION AND CARE OF BLOOMING AND TROPICAL PLANTS (formerly HORT 41, HORT 135 and AGRI 135) - 1.5 Units (P/NP Option)
Class Hours: 18 lecture/27 lab total
Designed to prepare and upgrade skills of those planning to work with tropical plants in nurseries and plant shops. Emphasis will be placed upon knowledge of plants and their care and use. During lab, students will be directed in practical work using various types of planters constructed in the industry. The class will include a thorough discussion of propagation techniques, pests and diseases common to houseplants.

AGEH 44 BEGINNING FLORAL DESIGN – SPRING FLOWERS (formerly HORT 44) - 2 Units (P/NP Option)
Note: Students must provide those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 18 lecture/54 lab total
Course introduces the beginning floral design student to the principles and techniques of flower arranging. The subject matter includes a blend of art, science, business, and career in preparation for entering the floral industry and related areas. Spring flowers and spring holiday arrangements will be emphasized. Note: This course may be repeated one additional time for a total of 2 course enrollments since course content varies and skills are enhanced by supervised repetition and practice.

AGEH 45 HOLIDAY DECORATIONS AND BANQUETS (formerly HORT 45) - 1 Unit (P/NP Option)
Note: Students must provide those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 18 lecture/9 lab total
This class will offer in-depth instruction on the specific techniques and floral materials used in holiday designing. Floral pieces specific to the fall and winter holidays will be created in class.

AGEH 46 SYMPATHY FLOWERS (formerly HORT 46) – 1 Unit (P/NP Option)
Advisory: A grade of C or higher in AGEH 34
Class Hours: 18 lecture/9 lab total
This class will offer in-depth instruction on the specific floral materials and techniques used in sympathy designing. Servicing the order and customer service relating to funerals and memorials will be emphasized. Floral pieces specific to funerals and memorials will be practiced in class.

AGEH 60 MASTER GARDENER TRAINING (formerly HORT 60) - 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 190 or English Placement Level 6 or higher
Class Hours: 54 lecture total
This is the training course for the Master Gardener Program, a community service organization designed to relay research based horticultural information to the home gardener. The Master Gardener program was developed by the University Cooperative Extension to train interested horticultural enthusiasts to assist local gardeners in diagnosing plant problems and to provide science based information for keeping home landscapes and the environment healthy. The University of California has agreed to let Shasta College use their training materials which are provided through this class. Topics covered in this course include pesticide use, IPM, weed identification and management, pruning, plant diseases, soils, fertilizers, growing vegetables, native plants, vermiculture, watering and many other plant related topics. This is a required course for anyone interested in obtaining a UC Extension certification as a Shasta College Master Gardener.

AGEH 70 ORGANIC GARDENING PRACTICES (SPRING) (formerly HORT 70) - 1 Unit (P/NP Option)
Note: This course is complementary to, but independent from organic gardening practices for summer (AGEH 71) and fall (AGEH 72) seasons.
Class Hours: 9 lecture/27 lab total
An introductory class emphasizing organic/sustainable practices for the home garden/small farmer. This course covers spring vegetables, soils, fertility, irrigation and cultural practices. Students will be planting and maintaining a garden plot. Since subject matter varies with each seasonal crop, this course is complimentary to AGEH 71 and AGEH 72 which addresses gardening practices for summer and fall seasons.

AGEH 71 ORGANIC GARDENING PRACTICES (SUMMER) (formerly HORT 71) - 1 Unit (P/NP Option)
Note: This course is complementary to, but independent from organic gardening practices for spring (AGEH 70) and fall (AGEH 72) seasons.
Class Hours: 9 lecture/27 lab total
Instruction includes summer crops, irrigation, pests and cultural practices for summer. Students will be planting and maintaining a garden plot. Subject matter in this course is supplementary to AGEH 70 and AGEH 72, which addresses gardening practices for spring and fall seasons.

AGEH 72 ORGANIC GARDENING PRACTICES (FALL) (formerly HORT 72) - 1 Unit (P/NP Option)
Note: This course is complementary to, but independent from organic gardening practices for spring (AGEH 70) and summer (AGEH 71) seasons.
Class Hours: 9 lecture/27 lab total
Fall vegetable growing practices for the home and market gardener. Includes fall vegetable cover crops and cultivating practices. Students will be planting and maintaining a garden plot. Since subject matter varies with each seasonal crop, this course is supplementary to AGEH 70 and AGEH 71, which addresses gardening practices for spring and summer seasons.

AGEH 75 WATER GARDENING (formerly HORT 75) – 1 Unit (P/NP Option)
Class Hours: 9 lecture/27 lab total
This course covers the basics of planning, constructing and maintaining a water feature in the landscape. Topics will include; selection, care and propagation of water and bog plants, planning and construction of water feature and general maintenance of the water garden. Selection and care of fish will also be covered.

AGEH 94 HORTICULTURE WORKSITE LEARNING (formerly HORT 94) - 1-4 Units
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

AGEH 97 SPECIAL TOPICS IN ENVIRONMENTAL HORTICULTURE (formerly HORT 97) - .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in environmental horticulture. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for agriculture, natural resources, and environmental horticulture majors; open to anyone with an interest in the topic. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

AGEH 98 SPECIAL TOPICS IN ENVIRONMENTAL HORTICULTURE - LAB SKILLS (formerly HORT 98) – .5-2 Units (P/NP Option)
Class Hours: 27-108 lab total
This course is designed to give students an opportunity to explore a variety of topics in a lab setting dealing with changing knowledge in environmental horticulture. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for agriculture, natural resources, and environmental horticulture majors; open to anyone with an interest in the topic. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

AGEH 120 SELECTED TOPICS IN ENVIRONMENTAL HORTICULTURE: PRUNING (formerly HORT 120, HORT 128E and AGRI 128E) -.5 Unit (P/NP Option)
Class Hours: 9 lecture total
A basic course in pruning techniques of ornamental plants, and the specific categories of flower-bearing and fruit-bearing trees, shrubs, and vines. The focus of this short course is to teach the student why plants are pruned, when plants should be pruned and how plants are pruned.

AGEH 122 SELECTED TOPICS IN ENVIRONMENTAL HORTICULTURE: PLANT PROPAGATION - .5 Unit (formerly HORT 122, HORT 128R and AGRI 128R) (P/NP Option)
Class Hours: 9 lecture total
Course will cover propagation by seed, cuttings, layering, grafting and budding. Rootstock selection will also be covered.

AGEH 125 MICRO-IRRIGATION AND LOW WATER USE LANDSCAPING (formerly HORT 125, AGRI 125) -1 Unit (P/NP Option)
Class Hours: 18 lecture total
Course will cover methods of reducing irrigation requirements of ornamental landscapes, including reducing evaporation, appropriate irrigation methods, and appropriate plants.

AGEH 130 INTRODUCTION TO NATIVE PLANTS (formerly HORT 130, AGRI 130) - 1 Unit (P/NP Option)
Note: Includes one local plant collection field trip.
Class Hours: 18 lecture total
Covers the strategy of drought tolerant plants, as well as the identification, collection, and propagation of native and non-native plants used in the landscape.

AGEH 133 INTRODUCTION TO RESIDENTIAL LANDSCAPE DESIGN (formerly HORT 133, AGRI 133) - 1 Unit (P/NP Option)
Class Hours: 18 lecture total
Course designed for non-horticulture majors and includes use of plant materials, texture, form, color, and scale. The selection, arrangement, and placement of hardscape and softscape materials will be emphasized.

AGEH 137 ORCHARD MANAGEMENT PRACTICES (formerly HORT 137, AGRI 137) - 1 Unit (P/NP Option)
Class Hours: 18 lecture/4 lab total
A study of the practices of producing fruits and nuts. Varieties, areas, propagation, pollination, planting, pruning, disease and insect control will be discussed.

AGEH 150 SMALL SCALE SPECIALTY CROP FARMING (formerly HORT 150) - 1 Unit (P/NP Option)
Class Hours: 9 lecture/27 lab total
A practical hands-on course in the methods and techniques of small scale specialty crop farming performed in the field. Organic, as well as inorganic methods, will be incorporated into the class. Students will select a site, develop a marketing plan, perform a soil analysis, select a crop, propagate seeds, and perform cultural practices, irrigation, pest management and marketing.

AGEH 197 SPECIAL TOPICS IN ENVIRONMENTAL HORTICULTURE MANAGEMENT (formerly HORT 197) - .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in environmental horticulture management. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for agriculture, natural resources, and environmental horticulture majors; open to anyone with an interest in the topic.

AG - EQUINE (AGEQ)

AGEQ 12 HORSEMANSHIP (formerly AGRI 12) – 3 Units (P/NP Option)
Note: It is recommended that students provide their own horse.
Class Hours: 36 lecture/54 lab total
This course is designed for those interested in learning to ride and handle horses. Includes basic equitation, proper seat and hands, tack identification and use, and basic care and grooming of the pleasure horse.

AGEQ 13 HORSE HUSBANDRY (formerly AGRI 13) – 3 Units (P/NP Option) (CAN# AG-AS 16)
Class Hours: 54 lecture total
The study of horse production practices including breed types, selection, conformation, nutrition, breeding and first aid. Emphasis will be placed on general health care and how to detect health problems. This course is designed for the beginner to intermediate horseperson.

AGEQ 14 WESTERN RIDING AND TRAINING (formerly AGRI 14, AGRI 111) – 3 Units (P/NP Option)
Class Hours: 36 lecture/54 lab total
This course specializes in the many phases of Western riding and training. It is suited for intermediate level riders and those interested in a career. Subjects covered include basic training, groundwork, showing, trail riding, and more. It is essential in the Certificate Program as it better prepares the student to enter the horse business. Note: This course may be repeated one time for a total of two enrollments since course content varies and skills are enhanced by supervised repetition and practice.

AGEQ 21 HORSE MANAGEMENT (formerly AGRI 21, AGRI 115) – 3 Units (P/NP Option)
Class Hours: 54 lecture total
An intensive study of the horse industry including factors for career success, including small stable management. Record keeping and facility management are also discussed. This class will emphasize the necessary skills needed to be a manager of a boarding, breeding, or training facility.

AGEQ 109 EQUINE REPRODUCTION – 1.5 Units (P/NP Option)
Class Hours: 18 lecture/27 lab total
An in-depth study of equine reproduction including basic principles of animal genetics, reproductive anatomy and physiology, breeding management of mares and stallions, evaluation of fertility, reproductive diseases and care of the pregnant mare and newborn foal. Artificial insemination, embryo transfer and current innovations in assisted reproduction will also be discussed. The laboratory portion of the course is designed to complement and reinforce the lecture by providing students with opportunities to learn practical skills in the field of equine reproduction. Students will be encouraged to develop skills in horsemanship, interpretation of equine sexual behavior, breeding management of mares and stallions and collection, evaluation and processing of fresh cooled and frozen semen. Ultrasound, artificial insemination and embryo transfer will be demonstrated. Some time will be dedicated to the use of computer resources currently available to breeders. There will be opportunities to participate in field trips.

AGEQ 110 HORSE TRAINING (formerly AGRI 110) – 3 Units (P/NP Option)
Advisory: A grade of C or higher in AGEQ 12
Class Hours: 36 lecture/54 lab total
A versatile approach to the basic principles involved in handling and training the young horse. Curriculum includes groundwork, trailering, starting a colt, and advancing the green horse. Problem solving will be discussed and worked on throughout the course. Horses are desired. Note: This course may be repeated one time for a total of two enrollments since course content varies and skills are enhanced by supervised repetition and practice.

AGEQ 111 HANDLING PROBLEM HORSES – 3 Units
Note: It is recommended that students provide their own horse.
Class Hours: 36 lecture/54 lab total
This course is designed to help people handle horses with existing problems as well as educating handlers on how to prevent problems from starting with their horses. Subject matter includes horse behavior and dealing with specific problems such as rearing, bucking, refusals, biting, trailering, and problems on the trail. Young horses are welcomed and novice handlers are encouraged to take this course.

AGEQ 112 HORSESHOEING (formerly AGRI 112, AGRI 112A) – 2 Units (P/NP Option)
Note: Students must provide their own horse for shoeing.
Class Hours: 27 lecture/27 lab total
Course offers the student an opportunity to study the anatomy and physiology of the horse's foot, leg, and posture. Instruction will be given in trimming of horse's feet and in the fitting and nailing of shoes.

AGEQ 113 HORSE OWNERSHIP AND BASIC HANDLING – 3 Units
Note: Field trips will be taken to local horse ranches.
Class Hours: 54 lecture total
This course specializes in what it takes to own horses on a small and large scale. Subject matter will include horse behavior, breeding, stable management, property ownership, pasture management, water, fly systems, barn plans, arena footing and much more.

AGEQ 114 BEGINNING ENGLISH RIDING AND TRAINING (formerly AGRI 114, AGRI 111B) – 3 Units (P/NP Option)
Note: Horses are not provided and helmets are required
Class Hours: 36 lecture/54 lab total
This course specializes in the many phases of English riding and training. It will bring together the material which is important to the student interested in horses as a career. This course helps to prepare the student to enter the horse business as a riding instructor, trainer, or manager.

AGEQ 115 SHOWING AND TRAINING THE HUNTER/JUMPER (formerly AGRI 115) – 2 Units (P/NP Option)
Advisory: A grade of C or higher in AGEQ 114
Class Hours: 18 lecture/54 lab total
This course is designed to introduce the intermediate or advanced rider to the proper selection, training and showing of the classic English hunter/jumper. Topics covered through labs and lecture will include training, basic dressage and flatwork, approaching jumper safe and properly, fitting the hunter/jumper and rider for shows, and organizational techniques to enhance shared experience.

AG – MECHANIZED AGRICULTURE (AGMA)

AGMA 44 INTRODUCTION TO CONSTRUCTION SKILLS FOR AGRICULTURE AND NATURAL RESOURCES (formerly ENVR 44) - 3 Units (CAN# AG-MA 4)
Class Hours: 27 lecture/81 lab total
This course covers the basic construction skills related to agriculture, natural resources, and environmental horticulture. Subjects covered will be mechanical drawing, design layout, arc welding, oxy/acetylene cutting and brazing, carpentry, electrification, small engine theory, concrete work structures, and project construction. Safety will be emphasized.

AG – NATURAL RESOURCES (AGNR)

AGNR 1 INTRODUCTION TO NATURAL RESOURCES (formerly NR 1) – 3 Units (P/NP Option)
Class Hours: 36 lecture/54 lab total
An introduction to the integrated management of forests, soil, watershed, fish, and wildlife in the context of protection and restoration of watersheds and ecosystems. An emphasis will be placed on natural resources careers, policy and law, tools, techniques and practices, and management philosophies of public and private lands. Basic biological and ecological processes will be introduced along with discussion of the scientific method and preparing reports.

AGNR 6 NATIVE PLANT IDENTIFICATION (formerly NR 6) - 3 Units (CAN# AG-NR 12) (P/NP Option)
Note: Includes one optional overnight weekend field trip.
Class Hours: 36 lecture/54 lab total
The study of botanical characteristics, taxonomy morphology, and community relationships of the major tree and shrub associations in California and Western United States. Includes discussion of commercial uses and geographic ranges of these plants.

AGNR 8 CAREER PLACEMENT – NATURAL RESOURCES (formerly NR 8) - 1 Unit
Class Hours: 18 lecture total
This course will assist the students in learning application and interview techniques. Students will develop an employment portfolio, and will be given an opportunity to interview with potential employers. It is the purpose of the class to help the student obtain the best employment for their summer work experience and upon graduation from college.

AGNR 10 SATELLITE IMAGERY & MAPPING TECHNIQUES FOR NATURAL RESOURCES (formerly NR 10) - 4 Units (P/NP Option)
Note: Includes one optional overnight weekend field trip.
Class Hours: 36 lecture/108 lab total
This course covers the use of aerial photographs and satellite imagery to analyze, interpret, and delineate vegetation types, land management practices, wildlife habitat, and other significant environmental parameters. Students will map and spatially analyze these landscape features using computerized geographic information systems. Students will also gain experience orienteering using equipment such as a hand compass, GPS receiver, topographic maps, aerial photographs, or satellite imagery.

AGNR 11 ENVIRONMENTAL ETHICS (formerly ENVR 11, INTR 11) - 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course examines the influence of cultural values on the relationship of humans with each other and with plants, animals and the land. An important objective is to develop original and sustaining attitudes and guidelines which will enhance a healthy globe. Sources of western society's historical and current attitudes toward nature as well as alternative cultural perspectives will be explored. Students will emerge from this class with a greater understanding of their individual moral responsibilities toward the environment. This course may be offered in a distance learning format.

AGNR 50 NATURAL RESOURCES MEASUREMENTS (formerly NR 50) – 4 Units (P/NP Option)
Note: Several field trips to various locations will occur as feasible.
Class Hours: 36 lecture/108 lab total (when offered in the Distance Education format, hours will total 108 for the lecture portion of the class and an additional 108 hours of lab totaling 216 hours for this course)
This course is an introduction to the sampling methods and equipment used to inventory forest resources. Log scaling and aerial photo interpretation will also be discussed. Measurements of timber stand growth, quantity and quality, and other forest products including water, range, wildlife and outdoor recreation will also be covered. The lecture portion of this course may be offered in a distance learning format.

AGNR 51 SILVICULTURE (formerly NR 51) – 2 Units (P/NP Option)
Note: Includes one optional overnight weekend field trip.
Class Hours: 18 lecture/54 lab total
Forestry practices and systems used to grow and manage trees and forests for the sustained production of timber products.

AGNR 52 COMPUTERS IN AGRICULTURE AND NATURAL RESOURCES (formerly ENVR 51, AGRI 52) – 3 Units
(P/NP Option) (CAN# AG-AB 8)
Class Hours: 36 lecture/54 lab total
This course introduces students to basic computer applications in agriculture, horticulture, natural resources, and related Career Technical Education majors. Students will gain basic computer literacy skills while learning to use examples of industry-specific software. Others topics will include file management, data manipulation, and use of software such as Word, Excel, Access, and PowerPoint. Students will also be exposed to basic concepts and software related to Geographic Information Systems (GIS). This course is required for all agricultural, horticulture, and natural resources majors.

AGNR 53 FOREST PROTECTION AND RESTORATION ECOLOGY (formerly NR 53) – 4 Units (P/NP Option)
Note: Several field trips to various locations will occur as feasible.
Class Hours: 36 lecture/108 lab total (when offered in the Distance Education format, hours will total 108 for the lecture portion of the class and an additional 108 hours of lab totaling 216 hours for this course)
This course will discuss the biotic and abiotic stress factors that influence forest resource values. Direct and indirect management practices in addition to Silvicultural principles that maintain and enhance biotic balance, biological diversity, and ecosystem health and productivity will be covered. The lecture portion of this course may be offered in a distance learning format.

AGNR 54 INTRODUCTION TO FOREST PRODUCTS (formerly NR 54) – 2 Units (P/NP Option)
Note: Several field trips to various locations will occur as feasible.
Class Hours: 18 lecture/54 lab total
This course is designed to introduce the student to the myriad of products that come from wood fiber. It will cover primary and secondary wood product processing and marketing. Specifically, it will cover those areas of sawmilling and lumber conversion, "value added" products, veneer manufacturing, particle board, plywood and other wood composite products, paper production and lumber exportation.

AGNR 55 TIMBER HARVESTING SYSTEMS AND EQUIPMENT (formerly NR 55) – 2 Units (P/NP Option)
Note: Several field trips to various locations will occur as feasible.
Class Hours: 18 lecture/54 lab total
Develop knowledge and skills to recognize the capabilities and limitations of timber harvesting equipment and systems operating in a broad range of forest resource management situations. After completing the course, students will be able to identify harvest systems that are best matched with the characteristics of the physical, environmental, economic, and social operating environments. Harvest process evaluations and decisions are aided with various forest engineering analysis and tools.

AGNR 59 OUTDOOR RECREATION & INTERPRETATION OF NATURAL RESOURCES (formerly NR 59) - 3 Units (P/NP Option)
Class Hours: 36 lecture/54 lab total
A study of the development and management of outdoor recreational areas, both private and governmental facilities. Course will include historical, economic, social, and political aspects of outdoor recreation including an emphasis on the special considerations of wilderness management. This course will also include an introduction to the interpretation of natural resources including an overview of theory and techniques for planning, developing, and implementing speeches, narrative talks, and interpretive programs as they relate to natural resources. An emphasis will be placed on organization and composition of these presentations and on developing displays and interpretive trails.

AGNR 60 ENVIRONMENTAL SCIENCE (formerly ENVR 60, NR 60) - 3 Units (P/NP Option) (CAN# AG-NR 8)
Advisory: Students who wish to add a lab component to this class should co-enroll in AGNR 61
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course is an introduction to the conservation or wise use of natural resources and incorporates discussions about the complex relationships of man to the environment. Students will learn about the diverse agencies that manage our resources along with their history and philosophies. Each of the major natural resources such as water, air, energy, forests, wildlife, agriculture, and soils will be covered and students will learn about the environmental policy and laws that govern use of these resources. An emphasis is placed on the practical components of Environmental Science as it relates to social and economic aspects of conservation. This course may be offered in a distance learning format.

AGNR 61 ENVIRONMENTAL SCIENCE LABORATORY (formerly ENVR 61) - 1 Unit (P/NP Option)
Corequisite: Student must be concurrently enrolled in AGNR 60, or have completed AGNR 60 with a grade of C or higher
Note: May include several field trips
Class Hours: 54 lab total
A laboratory course designed to complement AGNR 60 and to acquaint the students with some of the more common laboratory and field tests and procedures utilized in environmental science.

AGNR 64 WATER RESOURCES (formerly NR 64) - 3 Units (P/NP Option)
Note: Field trips to various district facilities, federal, state, county, city, and private agencies will occur as feasible.
Class Hours: 36 lecture/54 lab total (When offered in the Distance Education format, hours will total 108 for the lecture portion of the class and an additional 54 hours of lab totaling 162 hours for this course)
This course addresses a variety of topics concerned with the quality and quantity of water resources. Emphasis will be on the State of California. Coverage will include the hydrologic cycle, water budgets, water-soil balance, and climatic controls thereof. Sources, measurements, quality (pollution and treatment), usage, and conservation of water will be addressed. Environmental impacts of dam construction and hydroplant operation will be discussed. Laboratory work will involve measurements and interpretations of data collected or distributed. The lecture portion of this course may be offered in a distance learning format.

AGNR 65 FOREST ECOLOGY (formerly NR 65, NR 165) – 3 Units (P/NP Option)
Class Hours: 36 lecture/54 lab total (when offered in the Distance Education format, hours will total 108 for the lecture portion of the class and an additional 54 hours of lab totaling 162 hours for this course)
The forest community is used as a model to discuss ecological principles as they apply to forest management. Students will gain a better understanding of Biological Organization and community classification, biotic and abiotic environmental factors, population and community ecology, and the role of disturbance in forested ecosystems. In addition, biogeochemical cycling, forest succession, and the role of natural selection will be discussed. Students will be expected to apply scientific principles and critical thinking skills to all lab activities and research papers. The lecture portion of this course may be offered in a distance learning format.

AGNR 66 WATERSHED RESTORATION PRACTICUM (formerly NR 66) – 1 Unit (P/NP Option)
Class Hours: 54 lab total
This course will use the hydrologic watershed unit as the focus which will provide a hands-on approach to ecosystem management, erosion control, sediment control, and stream restoration. The course will emphasize how restoring resource values requires an interdisciplinary scientific approach and community-wide participation to protect, enhance and restore.
Note: Since subject matter varies each time the course is taught, based on the type and availability of community-based projects, this course may be repeated one time.

AGNR 67 ENERGY AND THE ENVIRONMENT (formerly NR 67) - 3 Units (P/NP Option)
Note: Short field trips to local energy production sites will be part of the class.
Class Hours: 36 lecture/54 lab total
The focus of this course is on the environmental, technological, political and economic aspects of energy production, development and use. Conventional sources of energy production and use are, today, being scrutinized due to environmental concerns, and political and economic reasons. Alternative sources of energy are consequently being researched, developed and adopted. The role of the alternatives is becoming increasingly important. Practical aspects of energy conservation, such as weatherization, solar home construction, and lifestyles will be discussed.

AGNR 69 BIRDS AND THEIR HABITAT (formerly NR 69) - 2 Units (P/NP Option)
Note: Three eight-hour field trips will be a required part of this course.
Class Hours: 27 lecture/27 lab total
An introduction to the study of birds. Emphasis on the behavior, taxonomy, migration, orientation, flight, evolution, economic importance, and field identification of the birds. We will also study bird ecology and the role of birds in bio-diversity and ecosystems. Other topics covered are songs and calls, territory, courtship, nests and eggs, care of young, and the systems (reproductive, etc.) of birds.

AGNR 70 WILDLIFE CONSERVATION AND MANAGEMENT (formerly NR 70) - 3 Units (P/NP Option) (CAN# AG-NR 16)
Note: Includes several all-day field trips
Class Hours: 36 lecture/54 lab total
The study of plant and animal ecology in relation to principles of wildlife management. An emphasis will be placed on identification of common western birds and mammals, sexing and aging criteria, wildlife population dynamics, wildlife habitat management, and a review of trapping and marking techniques. Ecological concepts such as biotic communities, succession, limiting factors, and predator-prey relationships will also be covered.

AGNR 83 INTRODUCTION TO GLOBAL POSITIONING SYSTEMS (GPS) (formerly NR 83) - 1 Unit
Class Hours: 9 lecture/27 lab total
This course is an introduction to theory and practice of geopositioning (GPS). Course will cover principles of geopositioning, including satellite systems, triangulation, accuracy and the configuration and use of GPS field devices. Students will gain experience in the use of both recreational grade and mapping grade GPS equipment for field navigation and data collection. The application of GPS to various fields and industries will be covered, from natural resources and agriculture to construction and infrastructure management.

AGNR 94 NATURAL RESOURCES WORKSITE LEARNING (formerly NR 94) - 1-4 Units
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

AGNR 97 SPECIAL TOPICS IN NATURAL RESOURCES (formerly NR 97) - .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in natural resources. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for agriculture, natural resources, and environmental horticulture majors; open to anyone with an interest in the topic. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

AGNR 173 BEGINNING TAXIDERMY (formerly NR 173) - 2 Units (P/NP Option)
Class Hours: 18 lecture/54 lab total
An introduction to taxidermy dealing with the taxidermy of birds. It will include collecting, materials and tools, preservatives, skinning, mounting and painting. Habitat materials and composition will be discussed and applied.

AGNR 174 INTERMEDIATE TAXIDERMY (formerly NR 174) - 2 Units (P/NP Option)
Prerequisite: A grade of C or higher in AGNR 173
Class Hours: 18 lecture/54 lab total
An introduction to taxidermy of small mammals, reptiles and fish. Advanced techniques in bird taxidermy are also presented. Instruction will include game laws, tools and materials, skinning, tanning, mounting and display. A variety of artificial habitats will be employed. Students will supply their own specimens.

AGNR 176 WILDLIFE OF NORTHERN CALIFORNIA (formerly NR 176) - 1 Unit (P/NP Option)
Note: A weekend field trip to the Tulelake area will be required.
Class Hours: 9 lecture/27 lab total
Common species of wildlife found in Northern California will be observed and discussed. Habitat ecology and management along with regulatory and conservation issues will be covered in the class. Various identification tools, instructional aids, and other relevant materials will be reviewed and discussed. NOTE: This course may be repeated once for a total of two enrollments since course content varies and skills are enhanced by supervised repetition.

AGNR 197 SPECIAL TOPICS IN NATURAL RESOURCES (formerly NR 197) - .5-2 Units (P/NP Only)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in natural resources. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for agriculture, natural resources, and environmental horticulture majors; open to anyone with an interest in the topic. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

AG – PLANT SCIENCE (AGPS)

AGPS 20 PLANT SCIENCE (formerly AGRI 20) – 4 Units (P/NP Option) (CAN# AG-PS 6)
Note: Field trips to local areas will be included.
Class Hours: 54 lecture/54 lab total
An introduction to the biological principles of plant growth and development. Ecosystem relationships will be covered with particular emphasis on succession, water cycle, mineral cycle, and energy flow. In addition to the investigating modern production and marketing practices of agronomic crops, the impact of commercial crop production upon mankind and the environment will be considered.

AGPS 24 SOILS - 3 Units (formerly ENVR 24, AGRI 24) (P/NP Option) (CAN# AG-PS 28)
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher; and one year of high school chemistry or equivalent
Note: Class includes two Saturday field trips on classification, judging, and conservation of soils. This class is required for all agriculture, natural resources, and horticulture majors.
Class Hours: 36 lecture/54 lab total
This class is an introductory course on the physical, chemical, and biological properties of soil as it relates to agriculture and natural resources. Ecosystem relationship of soil use and management is emphasized. The effects of drainage, tillage, and irrigation on land use are discussed.

AGPS 25 CALIFORNIA WATER (formerly AGRI 25) – 3 Units (P/NP Option)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course is an interdisciplinary examination of California's water use and management with a historical emphasis on the politics and conflict arising from water scarcity. Topics of water quality, water law, measurement of water, evaluation of irrigation methods and systems, and issues relating to water use will all be covered. This course may be offered in a distance learning format.

AGPS 126 PESTICIDE TRAINING (formerly AGRI 126, AGRI 126AD) – .5 Unit (P/NP Option)
Class Hours: 10 lecture total
This course is designed to meet the continuing education requirement for pesticide applicators and pest control advisors. The focus of the course is on methods and calculations necessary to apply pesticides safely, accurately and efficiently and to look at alternative techniques being used and developed for management of plant pests.

AG – SUSTAINABLE AGRICULTURE (AGSA)

AGSA 50 AGRICULTURE RESOURCE MANAGEMENT (formerly AGRI 50) – 3 Units (P/NP Option)
Class Hours: 36 lecture/54 lab total
A unique non-traditional land management class based on "sustainable," "regenerative," or "holistic" principles and practices. The total course will focus around the use of a "model" for making land management decisions for public and private lands. This class is appropriate for managing ranches and farms or for anyone interested in sustainable land management. Note: This course may be repeated one time for a total of two enrollments since course content varies and skills are enhanced by supervised repetition.

AG – VETERINARY SCIENCE (AGVETT)

AGVETT 1 VETERINARY ANATOMY, PHYSIOLOGY AND MEDICAL TERMINOLOGY (formerly VETT 1, AGRI 62) – 4 Units
Class Hours: 54 lecture/54 lab total
This lecture and laboratory course is designed to introduce the first semester Veterinary Technology student to the comparative normal anatomy and physiology of selected domestic animal species. The eleven anatomical systems are covered and material presented ranges from the microscopic cellular level to the level of the full organism. Relevant application of structure and function to the clinical medical situations is addressed. Appropriate medical terminology is included with each system and animal dissection is completed by each student.

AGVETT 2 FUNDAMENTALS OF ANIMAL HEALTH (formerly VETT 2, AGRI 63) - 4 Units
Prerequisite: A grade of C or higher in AGVETT 1
Note: This course is for students enrolled in the fall semester of their first year in the Veterinary Technician Program.
Class Hours: 54 lecture/54 lab total
This introductory lecture course defines the role of the Animal Health Technician in private veterinary practice, research institutions, regulatory agencies and zoos. Topics covered include basic animal care and management, feeding species identifications, behavior, handling skills, animal restraint, sanitation, personal hygiene, study of pharmacological agents, drug use, actions and laws, emergency first aid, zoonotic disease risk factor, animal nursing skills, instruments and equipment, terminology, veterinary practice ethics and legal responsibilities.

AGVETT 3 HEALTH AND DISEASES OF ANIMALS (formerly VETT 3, AGRI 60) - 4 Units
Prerequisite: A grade of C or higher in AGVETT 2
Class Hours: 54 lecture/54 lab total
This course is for students enrolled in their second year of the Veterinary Technology curriculum. The course provides the student with an introduction to infectious and non-infectious diseases and conditions of domestic animals. Material covered includes the etiology, pathogenesis, pathophysiology, and clinical signs of each disease. This course also includes lectures, demonstrations, and laboratory exercises covering routine clinical examinations of blood, urine and feces from several species. Significance of altered value commonly encountered in clinical medicine presented. External and internal parasites, identification, life cycle and clinical importance will be discussed.

AGVETT 4 VETERINARY RADIOLOGY AND IMAGING (formerly VETT 4) – 1 Unit
Prerequisite: A grade of C or higher in AGVETT 2
Class Hours: 9 lecture/27 lab total
Acquaints the student with the use of radiography, including radiographic duties of the Veterinary Technician curriculum. Special emphasis on medical, veterinary and radiographic terminology; elementary radiation and electrical protection; technical principles, and equipment operation. Fundamentals of latent and visible image formation, x-ray film characteristics, intensifying screens and film holders; theory and application of darkroom chemistry and processing; use and maintenance of veterinary x-ray processing equipment.

AGVETT 5 VETERINARY ANESTHESIOLOGY, SURGICAL ASSISTING AND DENTISTRY (formerly VETT 5, AGRI 61) - 4 Units
Prerequisite: A grade of C or higher in AGVETT 2
Class Hours: 54 lecture/54 lab total
Includes lectures covering animal surgical and medical nursing techniques and dental hygiene. Procedures and techniques with intravenous and inhalation anesthetics, surgical asepsis, skin preparation, instrument sterilization techniques and monitoring patients for vital signs are presented. Anesthetic drugs are discussed according to classification, mode of action, method of action and method of administration.

AGVETT 6 CARE OF EXOTIC AND LAB ANIMALS (formerly VETT 6, AGRI 66) - 1 Unit
Prerequisite: A grade of C or higher in AGVETT 2
Class Hours: 18 lecture total
This course will emphasize the necessary skills, and abilities required for a veterinary technician in laboratory animals. This theory should be complemented by an on-the-job training program working under the direct supervision of a California licensed veterinarian. This course is offered in partial fulfillment of the requirements to sit for the State Registry Exam via the Alternate Route.

AGVETT 7 VETERINARY MEDICAL RECORDS - 1 Unit
Class Hours: 18 lecture total
This lecture course is designed to teach the veterinary technician the legal aspects of working in the veterinary hospital. This course will cover proper medical records, filing, and computer principles. The course focuses on the interaction between clients and staff, and obtaining an understanding of the human and animal bond, and its effects on people. OSHA requirements will be covered including developing and applying a proper safety plan. Stress and substance abuse will also be covered.

AGVETT 16 VETERINARY PRACTICES (formerly AGRI 16) – 2 Units (P/NP Option)
Class Hours: 18 lecture/54 lab total
An introduction to common veterinary practices, sanitation, and livestock disease endemic to Northern California. Special emphasis will be given to parasite control and preventive vaccination programs. Lab activities will include demonstrations and student participation in performing castration, worming, vaccinations, and animal handling and restraint procedures.

AG – VITICULTURE (AGVIT)

AGVIT 80 VINEYARD DESIGN AND CONSTRUCTION (formerly HORT 80) - 1 Unit (P/NP Option)
Class Hours: 18 lecture/9 lab total
An introductory course in establishing a commercial or home vineyard. Numerous principles will be covered with respect to the design and construction of a vineyard. A vineyard will be utilized as a resource for this class.

AGVIT 81 VINEYARD CARE (formerly HORT 81) - 1 Unit (P/NP Option)
Class Hours: 18 lecture/9 lab total
This is an introductory course for the care and maintenance of wine grape vineyards. Both conventional and organic management methods will be discussed. This course would benefit students interested in both commercial production and home vineyard care.

AGRICULTURE (AGRI)

See AG, AGAB, AGAS, AGEQ, AGPS, AGSA, AGVETT for course listings

ANATOMY (ANAT)

ANAT 1 HUMAN ANATOMY – 5 Units (CAN # BIOL 10)
Advisory: A grade of C or higher in ENGL 190 or English Placement Level 6 or higher
Note: May be taken concurrently with PHY 1
Class Hours: 54 lecture/54 lab/18 discussion total
A college-level introductory course in human anatomy. A systematic hands-on approach to the anatomy of the human body. Human cadavers and/or mammalian dissection is used as a teaching resource. May be taken concurrently with PHY 1.

ANTHROPOLOGY (ANTH)

ANTH 1 PHYSICAL ANTHROPOLOGY – 3 Units (P/NP Option) (CAN# ANTH 2)
Advisory: A grade of C or higher in ENGL 1A or English Placement Level 7
Note: For Distance Education format, student must have access to the Internet.
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
Topics include the theories of human origins and the evolution of life in general; classification of primates, introduction to living primates and primate behavior, genetics, population genetics, the fossil record, the evolution of hominid behavior, the evolution of language, environment and technology; hunting and the evolution of society; the evolution and condition of modern humans. This course may be offered in a distance learning format.

ANTH 2 CULTURAL ANTHROPOLOGY – 3 Units (P/NP Option) (CAN# ANTH 4)
Advisory: A grade of C or higher in ENGL 1A or English Placement Level 7
Note: For Distance Education format, student must have access to the Internet.
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
An introductory course exploring the nature of culture as the human adaptation to the natural world. It includes such topics as making a living, family structure, social organization and institutions, language, religion, art, and cultural change. This course may be offered in a distance learning format.

ANTH 5 HUMANITY, CULTURE, AND ECOLOGY – 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 1A or English Placement Level 7
Note: When offered in a Distance Education format, student must have access to the Internet.
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
An ecological perspective of cultures as adaptations to diverse habitats, and explorations of how these adaptations respond to environmental alterations. Emphasis will be placed on adaptative strategies and challenges in contemporary societies. This course may be offered in a distance learning format.

ANTH 14 RELIGION, MYTH AND RITUAL – 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 280 or English Placement level 5 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A cross-cultural study of the forms and functions of religion, myth, and ritual in contemporary and historical societies. Emphasis will be on non-Western traditional groups and understanding their religious beliefs in a culturally relative context. This course may be offered in a distance learning format.

ANTH 25 CULTURE AND HISTORY OF THE NORTH AMERICAN INDIAN – 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 280 or English Placement Level 5 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A course dealing with the history and culture of the North American Indian. Emphasis will be on the origins, spread and diversification, and the development of Native American cultures in North America. Additional emphasis will be on contemporary Native Americans. Consideration will be given to how the arts, economics, and cultural contributions of Native Americans have influenced the modern world. This course may be offered in a distance learning format.

ARCHAEOLOGY (ARCH)

ARCH 3 PRINCIPLES OF ARCHAEOLOGY – 3 Units (CAN# ANTH 6)
Class Hours: 54 lecture total
An introductory course to the study of world prehistory and historical archaeology through the analysis of archaeological method, theory, and regional developments. The course includes case study examination of the fundamental concepts of archaeology and the changing theoretical orientations of archaeology in the contemporary world.

ARCH 4 FIELD ARCHAEOLOGY (formerly ARCH 4AD) – 3 Units (P/NP Option)
Class Hours: 18 lecture/108 lab total
An introductory course in the practical application of archaeological principles and methods. Students will become familiar with the basic techniques of scientific archaeological excavation and site survey, mapping, photographing, data recording, cataloging and preservation of archaeological specimens. Note: This course may be repeated three times for a total of four enrollments, since course content varies and skills are enhanced by repetition and practice.

ARCH 5 LABORATORY AND FIELD METHODS IN ARCHAEOLOGY (formerly ARCH 5AD) – .5-2 Units
Class Hours: 27-108 lab total
This is a course that emphasizes both the field aspects of archaeology coupled with post-field laboratory analysis and data interpretation. Method and theory of both field survey, excavation and recording and post-field data processing and curation and subsequent interpretation and explanation will be the class focus. Some work may require overnight stays. Students will assume positions of crew chiefs, laboratory chiefs, mappers, camp organizers, etc. under the instructor's direction. Students will participate in preliminary site analysis, interpretive projects, and cultural material processing. Note: This course may be repeated three times for a total of four enrollments, since course content varies and skills are enhanced by repetition and practice.

ART (ART)

ART 1 INTRODUCTION TO ART – 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A basic course in the visual arts including architecture, craft, graphics, painting and sculpture. Historical periods and the artist's role in society are covered in the Stone Age, Middle Ages, Renaissance, Baroque, Classical, Romantic, Impressionism, and Twentieth Century. Fundamental concepts of line, color, value, texture, form and space are examined by two and three dimensional examples. Recommended for Humanities elective. This course may be offered in a distance learning format.

ART 2 HISTORY OF WESTERN ART THROUGH THE GOTHIC PERIOD – 3 Units (P/NP Option) (CAN# ART 2) (CAN# ART SEQ A)
Class Hours: 54 lecture total
A historical survey course of the visual arts including architecture, crafts, engraving, etching, graphics, painting, sculpture, and woodcuts. Historical periods covered are Stone Age, Egyptian, Mesopotamian, Aegean, Greek, Etruscan, Roman, Byzantine, Christian, Medieval, Romanesque, and Gothic. (30,000 B.C. - 1400 A.D.) Required for the Art Core Program and recommended for Humanities elective.

ART 3 HISTORY OF WESTERN ART SINCE 1400 – 3 Units (P/NP Option) (CAN# ART 4) (CAN# ART SEQ A)
Class Hours: 54 lecture total
A historical survey course of the visual arts from the year 1400 through the 20th Century, with emphasis on painting, sculpture and architecture.

ART 4 WORLD ART – 3 Units
Class Hours: 54 lecture total
A survey of the visual arts of ethnic and indigenous cultures with an emphasis on both historic and contemporary art. Explored are the Eskimo, North West Coast, Pueblo, Apache, Navaho, Iroquois, Plains, Southeastern, California, Mexico, Peru, Africa, India, Japan and China. Lectures are focused on the styles, motifs, symbols, rituals and traditions of the cultures by examining their crafts, drawings, sculpture, printmaking and paintings. This course is designed as a Humanities elective, recommended for Art Core Programs, and required for Art History Concentration.

ART 6 HISTORY OF MODERN ART – 3 Units
Class Hours: 54 lecture total
An in-depth study of visual expression since 1860, starting with pre-Impressionist stirring and tracing the development of modernism through significant art movements in the 20th Century.

ART 12 BEGINNING FORM, DESIGN AND COLOR (formerly ART 14A) – 3 Units (P/NP Option) (CAN# ART 14)
Class Hours: 36 lecture/72 lab total
A fundamental course in two-dimensional design and color theory with the study of basic design elements as they apply to form. Two-dimensional design includes balance, directional movements, structural analysis, texture and unity. Color theory includes color schemes, psychological use of color, and value and intensity concepts. Required for the Art Core Program, and recommended for theatre, architecture and graphic design studies.

ART 13 INTERMEDIATE FORM, DESIGN AND COLOR (formerly ART 14B) – 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in ART 12
Class Hours: 36 lecture/72 lab total
An interpretative course using two-dimensional form concepts and color theory with the application to three-dimensional form. The development of personal ideas and direction, the use of scale, surface effects, and new materials (synthetics). More concern is given to presentation, focus and consistency.

ART 15 THREE DIMENSIONAL DESIGN (formerly ART 15AB) – 3 Units (CAN# ART 16)
Class Hours: 36 lecture/72 lab total
A hands-on studio art course using the elements and principles of three-dimensional design in the creation of form and space relationships. This course provides students with the fundamental design and problem solving skills that apply to the fields of three-dimensional art, architecture, landscape, interior and industrial design. This course transfers to all California State Universities and California Universities. This course may be repeated once for a total of two enrollments since course content varies and skill development is enhanced with a successive enrollment.

ART 16 PENCIL RENDERING (formerly ART 16AB) – 2 Units
Class Hours: 18 lecture/54 lab total
A fundamental course to prepare pictorial presentation applicable to advertising, architectural and industrial design, landscapes and illustrations using mechanical perspective and rendering media. Course designed for Architectural majors and recommended for Art majors. Note: This course may be repeated once for a total of two enrollments since course content varies and skill development is enhanced with a successive enrollment.

ART 17 SHADES, SHADOWS, AND PERSPECTIVES (formerly ART 17AD) – 3 Units (P/NP Option)
Class Hours: 36 lecture/72 lab total
A basic course in the use of various perspective techniques, using one and two point as well as grids. This course is designed for Art, Architecture, Graphic Design and Landscape Architecture students. It involves developing three-dimensional drawings of building structures, objects, etc., using perspective techniques and adding value rendering as well as shadows to create finished work. Note: This course may be repeated once for a total of two enrollments since course content varies and skills are enhanced by supervised repetition and practice.

ART 21A BEGINNING FREEHAND DRAWING – 3 Units (CAN# ART 8) (P/NP Option)
Class Hours: 36 lecture/72 lab total
An introductory course in the basic methods and tools of drawing using idea and technical development. A variety of materials will be used for this purpose. Course is required for Art Core Program.

ART 21B INTERMEDIATE FREEHAND DRAWING – 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in ART 21A
Class Hours: 36 lecture/72 lab total
A developmental course designed to expand upon the information and techniques learned in 21A. Greater concern for personal idea development, consistency and presentation techniques. More information given on paper and its manufacture, drawing materials and the techniques of developing a professional portfolio. A variety of materials will be used for this purpose.

ART 23 PEN, BRUSH AND INK (formerly ART 23AB) – 2 Units
Class Hours: 18 lecture/54 lab total
A course in the techniques using landscape, free brush, and still life drawings. Course is designed for Architecture majors and recommended for Commercial Art, Craft Concentration Program. Note: This course may be repeated once for a total of two enrollments since course content varies and skill development is enhanced with a successive enrollment.

ART 26 BEGINNING WATERCOLOR PAINTING (formerly ART 26AB) – 3 Units (P/NP Option)
Class Hours: 36 lecture/72 lab total
An introductory course in watercolor painting methods as they apply to the visual arts. Methods covered include wet wash, wash, stroke and glaze overlays, with emphasis on creative interpretation and expression. Note: This course may be repeated once for a total of two enrollments since skills are enhanced by supervised repetition and practice.

ART 27 INTERMEDIATE WATERCOLOR PAINTING (formerly ART 26CD) – 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in two semesters of ART 26
Class Hours: 36 lecture/72 lab total
A developmental course designed to expand upon the information and techniques learned in ART 26. General attention will be given to personal idea development, consistency, presentation techniques and working with more independence. The student will be expected to increase quality and number of paintings completed during the semester. The student will also learn to develop a professional portfolio and to communicate professionally. Note: This course may be repeated once for a total of two enrollments since skills are enhanced by supervised repetition and practice.

ART 29 BEGINNING PAINTING (formerly ART 25AB) – 3 Units (CAN# ART 10)
Class Hours: 36 lecture/72 lab total
A creative course in the use of oil, polymer, and other synthetic media on canvas, hardboard, or metal. Application of these media and other media use in representation and abstract form. Course designed for Painting Concentration. Note: This course may be repeated once for a total of two enrollments since skills are enhanced by supervised repetition and practice.

ART 30 INTERMEDIATE PAINTING (formerly ART 25CD) – 3 Units
Prerequisite: A grade of C or higher in two semesters of ART 29
Class Hours: 36 lecture/72 lab total
A developmental course designed to expand upon the information and techniques learned in ART 29-Beginning Painting. General attention will be given to personal idea development, consistency, presentation techniques and working with more independence. The student will be expected to increase quality and number of paintings completed during the semester. The student will also learn to develop a professional portfolio and to communicate professionally. Note: This course may be repeated once for a total of two enrollments since skills are enhanced by supervised repetition and practice.

ART 31 BEGINNING FIGURE DRAWING (formerly ART 22AB) – 3 Units
Class Hours: 36 lecture/72 lab total
An introductory course in creative drawing of the nude human figure. Emphasis will be placed on anatomy, proportion, composition, and development of personal expression. Course required for Art Core Program. Note: This course may be repeated once for a total of two enrollments since course content varies and skills are enhanced by supervised repetition and practice.

ART 32 INTERMEDIATE FIGURE DRAWING (formerly ART 22CD) – 3 Units
Prerequisite: A grade of C or higher in two semesters of ART 31
Class Hours: 36 lecture/72 lab total
A developmental course designed to expand on information and techniques learned in ART 31-Beginning Figure Drawing. Attention will be given to the development of a more personal interpretation of the figure, technique, consistency, presentation and the resolution and execution of ideas with greater independence. The student will produce and critically discuss increasingly sophisticated works which will become part of his/her professional portfolio. Note: This course may be repeated once for a total of two enrollments since course content varies and skills are enhanced by supervised repetition and practice.

ART 35 BEGINNING CERAMICS (formerly ART 35AB) – 3 Units (P/NP Option) (CAN# ART 6)
Class Hours: 36 lecture/72 lab total
An introductory course developing skills in hand-building with coils, slabs, and the use of the potter's wheel. The course includes glazing, decorative techniques, properties of clay and firing of ceramic forms. Note: This course may be repeated once for a total of two enrollments since course content varies and skills are enhanced by supervised repetition and practice.

ART 36 ADVANCED CERAMICS (formerly ART 35CD) – 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in ART 35
Class Hours: 36 lecture/72 lab total
This is an advanced ceramics course emphasizing studio problems which involve the potter's wheel, construction of molds and advanced hand-building techniques. Note: This course may be repeated once for a total of two enrollments since course content varies and skills are enhanced by supervised repetition and practice.

ART 45 BEGINNING GLASS BLOWING (formerly ART 45AB) – 3 Units (P/NP Option)
Class Hours: 36 lecture/72 lab total
A course that develops skills and aesthetic awareness in hand blown glass. The course includes safety procedures, use of glass working tools, design and execution of simple hand blown forms, formulary of melting and recycling of glass. Course designed for Glass and Crafts Concentration Programs. All students in the glass blowing classes are required to sign up for 2 hours of studio work outside of regular Class Hours. Note: This course may be repeated once for a total of two enrollments since skills are enhanced by supervised repetition and practice.

ART 46 INTERMEDIATE GLASS BLOWING (formerly ART 45CD) – 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in ART 45
Class Hours: 36 lecture/72 lab total
A developmental course focusing on skills progression in working with glass in the molten state. Emphasis is placed upon individualized projects for students. Students will work with studio equipment related to recycling, melting, firing and annealing of glass. Note: This course may be repeated once for a total of two enrollments since skills are enhanced by supervised repetition and practice.

ART 50 PRINTMAKING (formerly ART 50AD) – 3 Units (P/NP Option) (CAN # ART 20)
Class Hours: 36 lecture/72 lab total
An introductory course surveying printmaking processes as they apply to the visual arts. Studio experience will focus on one or two of the following techniques each semester: relief, intaglio, silk screen and/or lithographic printmaking. The creation of relief, silkscreen, intaglio and lithographic prints will be discussed and demonstrated. Note: This course may be repeated three times for a total of 4 enrollments since course content varies and skills are enhanced by supervised repetition and practice.

ART 55 BEGINNING SCULPTURE (formerly ART 55AB) – 3 Units (CAN # ART 12)
Advisory: A grade of C or higher in one semester of ART 15
Class Hours: 36 lecture/72 lab total
A creative course in the sculpting of wood, plastics, plaster, and other materials. Application of these media are used in abstract and representational forms. Course designed for the Art Core program. Note: This course may be repeated once for a total of two enrollments since skills are enhanced by supervised repetition and practice.

ART 56 INTERMEDIATE SCULPTURE (formerly ART 55CD) – 3 Units
Prerequisite: A grade of C or higher in two semesters of ART 55
Class Hours: 36 lecture/72 lab total
A developmental course designed to expand upon the information and techniques learned in ART 55, Beginning Sculpture. General attention will be given to personal idea development, consistency, presentation, techniques and working with more independence. The student will be expected to increase quality and size of sculpture pieces during the semester. The student will also learn to develop a professional portfolio and to communicate professionally. Note: This course may be repeated once for a total of two enrollments since skills are enhanced by supervised repetition and practice.

ART 57 SCULPTURAL GLASS – 3 Units
Prerequisite: A grade of C or higher in ART 55
Class Hours: 36 lecture/72 lab total
A structured advanced sculpture course in which students will develop an understanding of the potential of the medium of glass in its molten and frozen states. Students will begin a hands-on involvement with molten glass working, ladle sand casting, kiln casting and other glass processes. Regular demonstrations, presentations and in-class projects as well as individual assignments will establish a fundamental knowledge and physical understanding of glass as a medium for sculpture.

ART 60A BASIC PHOTOGRAPHY AND DARKROOM (form. ART 60AB) – 3 Units (P/NP Option) (CAN # ART 18)
NOTE: This is a film based class; students must provide their own 35mm camera with adjustable shutter and aperture.
Class Hours: 36 lecture/72 lab total
An introductory course presenting the origins and history of photography, camera and lens familiarization, exposure, metering, film development, printing procedures, print presentation, composition and standards of quality. Emphasis is placed on black and white negative and print quality along with content, composition and personal expression.

ART 61 BEGINNING CREATIVE PHOTOGRAPHY (formerly ART 61A) – 3 Units (P/NP Option)
NOTE: This is a film based class; students must provide their own 35mm camera with adjustable shutter and aperture.
Class Hours: 27 lecture/81 lab total
A course that concentrates on expressive and aesthetic aspects of photography in fine art. Emphasis will be placed on camera use, composition, film exposure and darkroom techniques to achieve artistic effect.

ART 62 INTERMEDIATE CREATIVE PHOTOGRAPHY (formerly ART 61BD) – 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in ART 60A or a grade of C or higher in ART 61
NOTE: This is a film based class; students must provide their own 35mm camera with adjustable shutter and aperture.
Class Hours: 27 lecture/81 lab total
A continuation of techniques covered in ART 61. Emphasis will be on negative quality, the fine print and presentation. On-going study will concentrate on creative development of the personal idiom in creation of a portfolio, aesthetics and critical though process. Note: This course may be repeated two times for a total of three enrollments since skills are enhanced by supervised repetition and practice.

ART 63 35MM SLIDE PHOTOGRAPHY – 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in ART 60A or a grade of C or higher in ART 61
Note: May not transfer to four-year institution for Art majors
Class Hours: 45 lecture/27 lab total
A concentrated course in the application of concepts and techniques in the production of transparency materials for free lance, commercial, and portrait applications. Subjects covered are photography color theory, types of slide films, processing slides, visual evaluation of slides, presentation and basic slide printing applications.

ART 80A GRAPHIC DESIGN – 2 Units (P/NP Option)
Class Hours: 18 lecture/36 lab total
An introduction to the commercial art field with emphasis on production techniques for the graphic arts. Subjects covered include rendering, typography, layout and design, printing processes, copy preparation, studio techniques and equipment.

ART 80B GRAPHIC DESIGN – 2 Units (P/NP Option)
Prerequisite: A grade of C or higher in ART 80A
Class Hours: 18 lecture/36 lab total
A developmental course using techniques from ART 80A with emphasis on graphic design. Subjects covered are designing with color, photography, literary illustration, advertising design, promotional graphics, instructional illustration, business practices, and portfolio development.

ART 97 SPECIAL STUDIO ART TOPICS – .5-2 Units (P/NP Option)
Class Hours: 27-108 lab total
This course is designed to give students studio-based instruction and experience in a variety of art processes not regularly covered in other art classes. A different topic/process will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for Art majors; open to anyone with an interest in the topic. Note: This course may be repeated three times for a total of four enrollments.

ART 98 SPECIAL ART TOPICS – .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This non-studio course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge and contemporary and historical issues in the field of art. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for Art majors; open to anyone with an interest in the topic. Note: This course may be repeated three times for a total of four enrollments.

THE 100 SERIES OF COURSES ARE SPECIFIC SUBJECT AREAS TAKEN FROM THE TRANSFER (1-98) COURSES AS SHORT-TERM INTRODUCTION COURSES:

ART 110 MIXED MEDIA: WORKS ON PAPER – 2 Units (P/NP Option)
Class Hours: 18 lecture/54 lab total
This course selectively and aesthetically combines various media and techniques of drawing, painting, photo, printing and collage into two-dimensional works. Underlying the instruction is a historical component which emphasizes modern and contemporary art to broaden the students' interest and awareness of contemporary trends. Note: Since subject matter varies each time the course is taught, it may be repeated three times for a maximum of four enrollments.

ART 121 ILLUSTRATION (formerly ART 121W) – 2 Units (P/NP Option)
Class Hours: 18 lecture/ 54 lab total
Designed to develop a personal approach to the problems of pictorial elucidation and provides an understanding of the use of visual media to illustrate verbal content. It develops a knowledge of the more common graphic media and of design elements in relationship to illustration. Note: Since subject matter varies each time the course is taught, it may be repeated three times for a maximum of four enrollments.

ART 122 PORTRAIT PAINTING (formerly ART 125W) – 2 Units (P/NP Option)
Class Hours: 18 lecture/54 lab total
A basic course in the materials, tools, composition, proportion, lighting, shadow patterns, anatomy, value, color, line and study of other masters in portrait painting. Note: Since subject matter varies each time the course is taught, it may be repeated three times for a maximum of four enrollments.

ART 123 LANDSCAPE PAINTING (formerly ART 125X) – 2 Units (P/NP Option)
Class Hours: 18 lecture/54 lab total
A basic course to introduce the techniques of landscape painting, specifically the areas of pictorial materials, space, simple perspective, composition, value, color, scale, texture, line, and the study of other landscape painters. Note: Since subject matter varies each time the course is taught, it may be repeated three times for a maximum of four enrollments.

ART 124 INTRODUCTION TO PAINTING (formerly ART 125Y) – 2 Units (P/NP Option)
Class Hours: 18 lecture/54 lab total
Designed as an introductory segment to the practice and theory of painting. This course will focus upon those aspects of pictorial organization employed in the formation of representational painting. Note: Since subject matter varies each time the course is taught, it may be repeated three times for a maximum of four enrollments.

ART 125 INTRODUCTION TO WATERCOLOR (formerly ART 126W) – 2 Units (P/NP Option)
Class Hours: 18 lecture/54 lab total
A preliminary course in watercolor methods, such as wet wash, stroke and glaze overlays, with emphasis on creative interpretation of the environment. Note: This course may be repeated three times for a maximum of four enrollments since skills are enhanced by supervised repetition and practice.

ART 126 NATURE IN WATERCOLOR (formerly ART 126X) – 2 Units (P/NP Option)
Class Hours: 18 lecture/54 lab total
An extensive course in different watercolor methods, such as: wet wash, stroke, and glaze overlays, with emphasis on creative interpretation of subjects in nature. Note: This course may be repeated three times for a maximum of four enrollments since skills are enhanced by supervised repetition and practice.

ART 301 BEGINNING, INTERMEDIATE & ADV. DRAWING & PAINTING-MIXED MEDIA – 0 Units
Class Hours: 6-108 lab total
An introductory, intermediate and advanced course incorporating basic drawing techniques using a variety of pencils and covering composition, color mixing, brush strokes, watercolor, acrylic, oil and pastels. The course is designed to provide stimulation and growth for individual adults through art activities.

ART 302 ART EXPRESSION FOR SENIORS – 0 Units
Class Hours: 6-108 lab total
Come and express yourself in colorful explorations. "Draw" upon your life experiences: your memories, dreams and reflections. Learn to create designs and images using paints, watercolor crayons, collage, colored pens/pencils, ink, pastels, fiber and clay. Course designed for older adults, no previous art experience is necessary.

ASTRONOMY (ASTR)

ASTR 1 ASTRONOMY – 3 Units (P/NP Option)
Class Hours: 54 lecture total
A survey course designed to introduce the science of astronomy. This course covers aspects of archaeoastronomy, telescope optics, radio astronomy, prominent scientists, planets and moons, the sun, stars, stellar evolution and galaxies.

ASTR 5 COSMOLOGY – 1 Unit (P/NP Option)
Class Hours: 27 lecture total
A course designed to introduce past and current scientific evidence addressing the size, mass distribution and evolution of the universe. Elementary particles, fundamental forces, time, inflationary models, cosmic strings, bubble universes and the large-scale structure of the universe are included topics.

ASTR 6 EXTRATERRESTRIAL LIFE – 1 Unit (P/NP Option)
Class Hours: 18 lecture total
A course designed to introduce the strategies and techniques scientists utilize to search and identify extraterrestrial intelligence. Search strategies, methods of detection, probability of the presence of habitable planets, terraforming, message content, interstellar travel, intelligence, and methods of communication are discussed.

AUTOMOTIVE TECHNOLOGY (AUTO)

NOTE: STUDENTS MUST PROVIDE THEIR OWN HAND TOOLS FOR TECHNICAL CLASSES IN THE DIESEL TECHNOLOGY AND AUTOMOTIVE TECHNOLOGY MAJORS IN ORDER TO COMPLETE REQUIRED COURSE OBJECTIVES.

AUTO 1 VEHICLE ELECTRICAL SYSTEMS – 3 Units
Class Hours: 36 lecture/72 lab total
Designed to cover the basic theory of electricity and magnetism, as well as areas of operation, testing and service of vehicle batteries, switches, relays, starters and starting systems, alternators, regulators, charging systems and light circuits. The course includes electrical theory, repair procedures, and ASE laboratory tasks. This course, along with AUTO 10, is designed to prepare students to become ASE certified in area A-6. Required for Automotive and Diesel Technology majors with emphasis on electrical systems.

AUTO 10 AUTOMOTIVE ELECTRONICS (formerly AUTO 110) – 3 Units
Prerequisite: A grade of C or higher in AUTO 1
Class Hours: 36 lecture/72 lab total
This course is designed to establish an understanding of electronic theory and solid state technology as it applies to the automobile. The student will learn to read wiring schematics, calculate voltages, current flow, and resistances within parallel and series circuits, and to properly use related testing equipment used for diagnosis. This course includes electrical/electronic theory, repair procedures, and ASE laboratory tasks. This course, along with AUTO 1, is designed to prepare students to become ASE certified in area A-6.

AUTO 20 ENGINE PERFORMANCE – 4 Units
Class Hours: 36 lecture/108 lab total
This course is designed to give students the understanding of the operation of automotive engines and related systems such as electrical, ignition and fuel delivery. The course will also provide students with entry level skills to diagnose, service and repair these systems using current industry tools and equipment. This course includes ASE laboratory tasks and is designed to prepare students to become ASE certified in area A-8.

AUTO 21 ADVANCED ENGINE PERFORMANCE – 3 Units
Prerequisite: A grade of C or higher in AUTO 20
Class Hours: 36 lecture/72 lab total
This course is designed to continue the study of engine performance by including the emission control systems and computer controlled engine operation. The course will also provide students with entry level skills to diagnose, service and repair these systems using current industry tools and equipment. This course includes ASE laboratory tasks and, along with AUTO 20, is designed to prepare students to become ASE certified in areas A-8 and L-1.

AUTO 94 WORKSITE LEARNING FOR AUTOMOTIVE TECHNOLOGY – 1-4 Units
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

AUTO 130 AUTOMOTIVE STEERING AND SUSPENSION – 3 Units
Class Hours: 36 lecture/54 lab total
This course is designed to give students the entry level skills required to diagnose, service, and repair modern automotive wheel and tire, steering, and suspension systems. The course includes theory of operation, repair procedures, and ASE laboratory tasks. This course, along with AUTO 131, is designed to prepare students to become ASE certified in area A-4.

AUTO 131 AUTOMOTIVE WHEEL ALIGNMENT – 2 Units
Prerequisite: A grade of C or higher in AUTO 130
Class Hours: 18 lecture/54 lab total
This course is designed to give students the entry level skills required to perform complete four-wheel alignments on modern automobiles and light trucks. The course includes theory of alignment principles and the operation of industry standard alignment equipment. This course, along with AUTO 130, is designed to prepare students to become ASE certified in area A-4.

AUTO 147 AUTOMOTIVE BRAKING SYSTEMS – 3 Units
Class Hours: 36 lecture/72 lab total
This course is designed to provide the entry level skills needed to diagnose, service, and repair various braking systems found on domestic and import automobiles and light trucks. The course includes brake theory, repair procedures, and ASE laboratory tasks, and is designed to prepare students to become ASE certified in area A-5. Standard and power assist, drum and disc type systems and anti-lock braking systems are included in this course.

AUTO 150 AUTOMOTIVE INTERNAL COMBUSTION ENGINES THEORY – 3 Units
Class Hours: 54 lecture total
This course is designed to cover the fundamentals of the modern internal combustion engine including theory, diagnosis, and overhaul procedures. Completion of this course along with AUTO 152, will prepare students to become certified in ASE areas A-1, M-1, M-2 and M-3.

AUTO 152 AUTOMOTIVE ENGINES LABORATORY – 3 Units
Corequisite: Students must be concurrently enrolled in, or have completed AUTO 150 with a grade of C or higher
Class Hours: 162 lab total
This course is designed to provide entry level skills required to overhaul the modern internal combustion engine. ASE and AERA based tasks utilize hand and power tools and modern machining equipment. Completion of this course along with AUTO 150 will prepare students to become certified in ASE areas A-1, M-1, M-2 and M-3.

AUTO 161 MANUAL DRIVE TRAIN AND AXLES – 3 Units
Class Hours: 36 lecture/72 lab total
A course designed to give a technical and working knowledge of manual drive trains and axles. Subject matter covered includes clutch diagnosis and repair, manual transmission diagnosis and repair, transaxle diagnosis and repair, drive (half) shaft and universal joint diagnosis and repair, rear axle diagnosis and repair, four-wheel drive component diagnosis and repair, theory of operation, repair procedures, and ASE laboratory tasks. This course is designed to prepare students to become ASE certified in area A-3.

AUTO 162 AUTOMATIC TRANSMISSIONS AND TRANSAXLES – 4 Units
Class Hours: 36 lecture/108 lab total
A course designed to give a working knowledge of automatic transmissions and transaxles. Subject matter covered will include transmission/transaxle maintenance and adjustment, in-vehicle transmission/transaxle repair, and off-vehicle transmission/transaxle repair. The course includes theory of operation, repair procedures, and ASE laboratory tasks. This course is designed to prepare students to become ASE certified in area A-2.

AUTO 163 HEATING, AIR CONDITIONING AND ACCESSORIES – 3 Units
Class Hours: 36 lecture/54 lab total
This course is designed to give students a technical and working knowledge of automotive heating and air conditioning systems. Emphasis is placed on entry level skills necessary for diagnosing, servicing, and repairing modern automotive heating and air conditioning systems. The course includes theory of operation, repair procedures, and ASE laboratory tasks. This course is designed to prepare students to become ASE certified in area A-7.

AUTO 164 ADVANCED TOPICS IN AUTOMATIC TRANSMISSIONS – 2 Units
Class Hours: 18 lecture/54 lab total
A course designed to give a working knowledge of electronic automatic transmissions and transaxles. Subject matter covered includes a review of hydraulic and electronic principles, in-vehicle transmission/transaxle diagnosis and repair, and off-vehicle transmissions/transaxle repair. The course includes theory of operation, repair procedures, and use of diagnostic equipment necessary for problem solving on the modern electronic transmissions and transaxles. Also covered will be applications for automatic transmissions in the area of high performance vehicles.

AUTO 170 AUTOMOTIVE SERVICE PRINCIPLES – 2 Units
Class Hours: 18 lecture/54 lab total
This course is designed as an introduction to the modern automobile with a focus on maintenance and service procedures. Emphasis will be placed on safety, consumer awareness, tool usage, and vehicle systems. Students will be required to provide a vehicle on which to perform the maintenance and service procedures and will need to have the necessary owners manual or service manual for that vehicle.

AUTO 172 BASIC AREA CLEAN AIR CAR COURSE – 3 Units Class Hours: 36 lecture/72 lab total
This course is designed to prepare students for entry into the Bureau of Automotive Repairs Smog Check Program. Successful completion of this course will allow any student to apply for an interim smog license. Before taking the ASE certification tests A6, A8 and L1, it is highly recommended that students complete the requirements for an Engine Performance Certificate. ASE Certification in areas A-6 and A-8 will be required by the Bureau for application for a Basic Smog License Exam and ASE Certification in areas A-6, A-8 and L-1 for application for the Advanced Smog License Exam.

AUTO 180 AUTOMOTIVE MACHINIST I (formerly AUTO 180A) – 4 Units
Prerequisite: A grade of C or higher in AUTO 150 and AUTO 152, or a grade of C or higher in DIES 164
Note: Basic hand tools required
Class Hours: 36 lecture/108 lab total
This course is designed to give the student instruction in the use of precision equipment required in the reconditioning of modern automotive engines. Students completing this course will have the manipulative skills and the knowledge of the various machine tools required to completely remanufacture automotive engines.

AUTO 181 AUTOMOTIVE MACHINIST II (formerly AUTO 180B) – 4 Units
Prerequisite: A grade of C or higher in AUTO 180
Note: Basic hand tools required
Class Hours: 36 lecture/108 lab total
This course will build on the skills obtained in AUTO 180, Automotive Machinist I, and will provide new skills in the following areas: advanced machining techniques, high performance machines, changing fixtures, maintenance and service of machine tools.

AUTO 197 SPECIAL TOPICS IN AUTOMOTIVE TECHNOLOGY – .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in the field of Automotive Technology. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for Automotive majors; open to anyone with an interest in the topic. Note: This course may be repeated three times for a total of four enrollments.

AVIATION (AVIA)

AVIA 101 AVIATION GROUND SCHOOL – 3 Units (P/NP Only)
Class Hours: 54 lecture total
Course is designed to prepare the student for qualification to take the Federal Aviation Administration private pilot's written exam.

AVIA 105 INSTRUMENT GROUND SCHOOL – 3 Units (P/NP Only)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
An aviation ground school designed to prepare the student to take the Federal Aviation Administrations instrument pilots written examination. This course may be offered in a distance learning format.

BIOLOGICAL SCIENCES (BIOL)

BIOL 1 PRINCIPLES OF BIOLOGY – 4 Units (CAN# BIOL 2) (BIOL SEQ A)
Prerequisite: A grade of C or higher in CHEM 1A
Class Hours: 36 lecture/108 lab total
A biological science emphasizing molecular and cellular organization, energetics of respiration and photosynthesis, cell integration and development. General principles of heredity, evolution, speciation and ecology. Intended for majors in science.

BIOL 5 INTRODUCTION TO HUMAN BIOLOGY - 3 Units
Class Hours: 54 lecture total
A one-semester introductory course in human anatomy and physiology presented with a medical emphasis. Selected topics on eleven organ systems are covered. This course is intended to serve medical assistants, licensed vocational nursing, and fire science majors. It also complements child development and nutrition majors. BIOL 5 is a prerequisite for the LVN program.

BIOL 6 INTRODUCTION TO HUMAN BIOLOGY LABORATORY – 1 Unit
Corequisite: Student must be concurrently enrolled in, or have completed BIOL 5 with a grade of C or higher
Class Hours: 54 lab total
A laboratory course designed to complement BIOL 5. A one-semester human anatomy and physiology laboratory course. Exercises include anatomical language, microscopy, membrane transport processes, skeletal muscle contraction, cardiology, blood pressures, pulmonary ventilation, and enzymatic digestion. The anatomy of eleven organ systems is also included. BIOL 6 is a prerequisite for the LVN program.

BIOL 10 GENERAL BIOLOGY – 4 Units (P/NP Option)
Class Hours: 54 lecture/54 lab total
This course is an introduction to the major concepts of modern biology. Topics covered include cell biology, heredity and nature of genes, evolution, diversity of life, and principles of ecology. Emphasis will be placed on those aspects of biology that are rapidly reshaping our culture. This is an approved general education course for non-life science majors who desire an introductory biology course with laboratory.

BIOL 11 DIVERSITY OF LIFE – 3 Units (P/NP Option)
Class Hours: 162 total hours
This course is a 3-unit, transferable, non-laboratory, computer-based life science course. It is available only on the Internet and is intended for those people who, for one reason or another, cannot come to the Shasta College campus for course work. Topics include molecular and cell biology, inheritance, gene expression, mutation, evolution and the diversity of living organisms.

BIOL 12 FIELD BIOLOGY – 3 Units
Class Hours: 36 lecture/54 lab total
Plant and animal morphology, classification and ecological relationships examined through field and laboratory study. Principles of ecology illustrated in the context of biotic communities of Northern California.

BIOL 14 HEREDITY (formerly PHY 10) – 3 Units
Class Hours: 54 lecture total
An introduction to the biological, medical and environmental basis of man's inheritance.

BIOL 15 ENTOMOLOGY – 3 Units
Class Hours: 36 lecture/54 lab total
An introduction to the study of insects, their biology, anatomy, classification, and relation to human welfare.

BIOL 30 NATURE PHOTOGRAPHY – 1 Unit (P/NP Option)
Note: Students must provide a camera, film, and processing
Class Hours: 9 lecture/27 lab total
Methods and techniques used in nature photography. Includes, micro, macro, wide angle, normal and telephotography.

BIOL 60 BIOLOGY OF AGING – 3 Units (P/NP Option)
Class Hours: 54 lecture total
This course examines processes and responses of the individual during the aging process. Emphasis will be on the difference between normal aging in the absence of disease and aging with disease. Topics include: Mental health, mental disease, sexuality, physical aspects of aging, acute illness, chronic illness, dying, and theories of aging.

BOTANY (BOT)

BOT 1 GENERAL BOTANY – 4 Units (CAN# BIOL 6) (BIOL SEQ A)
Prerequisite: A grade of C or higher in MATH 102 or Math Placement Level 4 or higher
Class Hours: 36 lecture/108 lab total
An introduction to the structure, physiology, reproduction, life cycles and taxonomic of major plant and plant-like groups.

BOT 50 WILDFLOWERS OF CALIFORNIA – 1 Unit (P/NP Only)
Note: Two all-day Saturday field trips will be required.
Class Hours: 18 lecture /11 lab total
Local wildflowers are examined closely in the laboratory in order to learn their structural characteristics. This knowledge will be used to identify flowers using a plant identification key and for sight identification. The field trips reinforce identification skills by allowing students to observe these flowers in their natural setting. A supplementary course for botany, biology, forestry, ornamental horticulture, and natural resources students; elementary and high school teachers; and general interest. Five three-hour class meetings and two all day Saturday field trips.

BOT 52 MUSHROOM IDENTIFICATION – 2 Units (P/NP Option)
Note: Includes two local mushroom collection field trips
Class Hours: 27 lecture /27 lab total
In this course, students will learn to identify mushrooms and other fungi of Northern California. Class discussions will cover mushroom biology, the groups of fungi, mushroom structure, recognizing mushrooms by sight, and identifying mushrooms using written mushroom identification keys. Field trips will reinforce identification skills and help students understand the role of mushrooms in the ecosystem. There will be special emphasis on mushroom poisons and consumer safety.

BUSINESS ADMINISTRATION (BUAD)

See Also: ACCT, MKTG, MIS. OAS, and REAL

BUAD 6 BUSINESS LAW – 3 Units (CAN# BUS 8)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course primarily involves the legal ramifications of business and personal conduct in the areas of business contracts and agency. In addition, it includes an introduction to the American legal system, alternative dispute resolution, business torts and ethics. This course may be offered in a distance learning format.

BUAD 8 BUSINESS LAW – 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course involves the various parameters and requirements of business organizations, security devices, bankruptcy with personal and intellectual property issues. This course may be offered in a distance learning format.

BUAD 10 INTRODUCTION TO BUSINESS – 3 Units
Advisory: A grade of C or higher in ENGL 280 or English Placement level 5 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A survey course for both business and non-business majors covering the major field of business. Dynamics and complexities of the competitive business world including international business are explored through the study of topics including forms of business ownership, social responsibility and ethics, entrepreneurship, personnel, management and marketing concepts, securities market and other major aspects of business. Designed to provide students with familiarity with basic principles and practices of contemporary business, knowledge of business terminology, and an understanding of how business works within the U.S. economic system. Due to its introductory nature, it is recommended that this course be taken as a first business course. This course may be offered in a distance learning format.

BUAD 12 INTERNATIONAL BUSINESS – 3 Units (P/NP Option)
Advisory: A grade of C or higher in BUAD 10, and a grade of C or higher in ENGL 280 or English Placement Level 5 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
An introduction to the essentials of international business and the environmental forces that impact on the managerial decision process. Gives an overview of global business with emphasis on cultural differences and global business concepts and issues influencing international business decision-making. Course examines the physical, financial, political, legal, competitive, labor, marketing, economic, and sociocultural constraints and opportunities of foreign market analysis and trade management. This course may be offered in a distance learning format.

BUAD 15 BUSINESS AND SOCIETY – 3 Units
Class Hours: 54 lecture total
The purpose of this course is to acquaint the student with the American enterprise system, impart consumer knowledge, become aware of business issues and their effect on merchants as well as customers, understand the consumer's role in relation to the marketplace, explore current business and ethical issues, and develop an appreciation for the complexity of business decision making.

BUAD 40 ENTREPRENEURSHIP AND SMALL BUSINESS OPERATIONS – 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in BUAD 10
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course is an entrepreneurial perspective of starting a small business. The course covers techniques and methods of starting and managing a small business enterprise and incorporates the development of a sound business plan that includes a financial, management, and marketing analysis. This course may be offered in a distance learning format.

BUAD 41 LEADERSHIP & SUPERVISION (formerly Personnel Management) – 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course focuses on the role of the first-line supervisor in the organization. There is particular emphasis on team building, coping with organizational change, leadership styles, motivating employees, and the supervisor's role in monitoring the primary management functions of planning, organizing, directing and controlling. This course may be offered in a distance learning format.

BUAD 42 FINANCING A SMALL BUSINESS – 3 Units (P/NP Option)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A course designed to give an understanding of the various ways of funding a business venture. The course explores how to raise money for growing or starting a small business by reviewing sources of public and private debt, equity capital, Initial Public Offering, commercial loans and SBA-guaranteed programs. This course may be offered in a distance learning format.

BUAD 44 INVESTMENTS (formerly FIN 44) – 3 Units (P/NP Option)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
Course designed to help the student gain an understanding of stocks, bonds, and other securities. Students will be encouraged to develop their own investment philosophy based on an understanding of the securities market and methods of analyzing that market. Recommended for students wanting an understanding of how businesses raise capital in the securities market. The student will develop a hypothetical personal investment portfolio, which will be tracked with the assistance of a web-based monitoring system. This course may be offered in a distance learning format.

BUAD 45 HUMAN RELATIONS ON THE JOB – 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
Human Relations on the Job is a course designed to give the student the opportunity to increase interpersonal skills. There is particular emphasis on communication, motivation, leadership, and group decision skills. Emphasis is placed on improved relationships among employees and between employees and employers. Topics include communication processes and styles, attitudes, values, motivation, leadership, valuing diversity, and reinforcement on the job. This course may be offered in a distance learning format.

BUAD 46 FUNDAMENTALS OF NONPROFIT MANAGEMENT – 1 Unit (P/NP Option)
Class Hours: 18 lecture total (when offered in the Distance Education format, hours will total 54)
Fundamentals of Nonprofit Management provides an understanding of the nonprofit sector as a whole and as well as nonprofit management from an overview perspective. This course will introduce the fundamentals of effective organization mission and vision statements, strategic planning, operations management, and budgeting. Participants will gain understanding of different aspects of management of a nonprofit organization. This course may be offered in a distance learning format.

BUAD 47 FUNDRAISING TECHNIQUES AND PLANNING – 1 Unit (P/NP Option)
Class Hours: 18 lecture total (when offered in the Distance Education format, hours will total 54)
Fundraising Techniques and Planning will provide participants with the information and resources needed to help understand and prepare fund raising goals with confidence. Presentation will include an overview of fund raising vehicles, tools and methods for developing a funding plan, and how to best market to build awareness within the community for the organization's mission. This course may be offered in a distance learning format.

BUAD 48 GRANT FUNDING: FINDING THE RIGHT SOURCE – 1 Unit (P/NP Option)
Class Hours: 18 lecture total (when offered in the Distance Education format, hours will total 54)
Grant Funding: Finding the Right Source provides an overview to the grant-seeking process that includes defining needs, identifying and researching prospective grant makers, writing proposals, cultivating grant makers, and accountability – reporting and following up with grant makers. This course may be offered in a distance learning format.

BUAD 49 NONPROFIT FINANCIAL MANAGEMENT – .5 Unit (P/NP Option)
Class Hours: 9 lecture total (when offered in the Distance Education format, hours will total 27)
Nonprofit Financial Management will provide an overview on the basic processes involved in nonprofit financial management. The course will focus on financial management issues faced by board members and by senior and executive managers in nonprofit organizations. The student will learn professional financial management practices for a nonprofit organization. Discussion will include how to develop and implement appropriate controls, procedures and financial management policies to ensure your organizations financial well-being. This course may be offered in a distance learning format.

BUAD 50 MARKETING AND PUBLIC RELATIONS FOR NONPROFITS – 1 Unit (P/NP Option)
Class Hours: 18 lecture total (when offered in the Distance Education format, hours will total 54)
Offering a combination of theory and practice, Marketing and Public Relations for Nonprofits demonstrates how to market to key audiences, both inside and outside of the organization. In addition to helping participants understand target markets and shaping the message for the audience, this course discusses key public relations vehicles. This course may be offered in a distance learning format.

BUAD 51 BOARDS OF DIRECTORS IN NONPROFIT ORGANIZATIONS – .5 Unit (P/NP Option)
Class Hours: 9 lecture total (when offered in the Distance Education format, hours will total 27)
In addition to being legally mandated, boards of directors play a crucial role in shaping and leading nonprofit organizations. This course focuses on how boards are developed, their legal governance roles and how partnerships between board members and the executive staff can assist the organization in fulfillment of its mission. This course may be offered in a distance learning format.

BUAD 52 STAFF AND VOLUNTEER MANAGEMENT IN NONPROFIT ORGANIZATIONS – 1 Unit (P/NP Option)
Class Hours: 18 lecture total (when offered in the Distance Education format, hours will total 54)
Effective staff and volunteer management is critical to the success of nonprofit organizations. This course examines the management of nonprofit employees and volunteers, including recruitment, hiring, development, performance evaluation and various legal aspects of human resource activities. Discussions will include the importance of increasing the diversity of the staff and board to reflect the diverse community-at-large. This course may be offered in a distance learning format.

BUAD 53 ACCOUNTABILITY REQUIREMENTS FOR NONPROFIT ORGANIZATIONS – .5 Unit (P/NP Option)
Class Hours: 9 lecture total (when offered in the Distance Education format, hours will total 27)
Nonprofit managers need to know about the laws that create and govern nonprofit organizations. This course examines the laws and general regulations that apply to nonprofit organizations, including documentation, record keeping, and tax exemption requirements. This course may be offered in a distance learning format.

BUAD 54 NONPROFIT POLICY, ADVOCACY AND COMMUNITY BUILDING – .5 Unit (P/NP Option)
Class Hours: 9 lecture total (when offered in the Distance Education format, hours will total 27)
Nonprofit leaders must understand the political and public policy areas shaping program mandates and funding opportunities. Facing new challenges, nonprofits must prepare to influence public policy and respond to threats to their environment. This course covers advocacy, building and expending political capital, and developing community relationships. This course may be offered in a distance learning format.

BUAD 66 BUSINESS COMMUNICATIONS – 3 Units
Prerequisite: A grade of C or higher in BUAD 166 or English Placement Level 6 or higher
Note: Student must submit all assignments in keyboarded (not handwritten) format.
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course provides implementation of letter-writing principles and techniques through expository and argumentative writing. Additionally, the writing of an employment portfolio, business letters, and team presentation is required. Application of electronic communication (Netiquette, email format, Internet uses) will also be presented. This is a required course for many major and certificate programs and an alternate requirement or suggested elective in others. This class also satisfies the A.S. General Education requirement in English. This course may be offered in a distance learning format.

BUAD 71 INTRODUCTION TO e-COMMERCE – 1 Unit (P/NP Option)
Class Hours: 18 lecture total (when offered in the Distance Education format, hours will total 54)
This course is an introduction to e-commerce principles. Topics include an overview of where e-commerce fits into the business, e-commerce basics, cost-benefit of e-commerce solutions, planning and development. This course offers practical suggestions to individuals involved in or planning an e-commerce business or business component. This course may be offered in a distance learning format.

BUAD 72 e-COMMERCE MARKETING – 1 Unit (P/NP Option)
Class Hours: 18 lecture total (when offered in the Distance Education format, hours will total 54)
E-Commerce Marketing (electronic commerce) is the study of all the online or electronic-based activities that facilitate manufacturing goods and services by the producer to satisfy the wants and needs of the consumer. Electronic marketing draws heavily on networks' technology to coordinate market research, aid product development, and develop strategies and tactics to persuade consumers to buy, provide for online distribution, maintain customer records, conduct customer satisfaction surveys, and gather consumer feedback. Electronic marketing advances the overall marketing program that in turn supports the company's overall marketing business objectives. This course may be offered in a distance learning format.

BUAD 73 WEB DESIGN CONCEPTS FOR e-COMMERCE – 1 Unit (P/NP Option)
Class Hours: 18 lecture total (when offered in the Distance Education format, hours will total 54)
This course is a conceptual approach to basic principles/concepts of web design for e-commerce applications. Topics include analysis of established e-commerce web sites; internet principles and access; storefront services; software options; advertising options; search engines and directories; monitoring customers; understanding forms; databases; shopping carts; and payment processing. This is a CONCEPTUAL course and does not involve the hands-on development of web sites. This course may be offered in a distance learning format.

BUAD 80 PRINCIPLES OF CUSTOMER SERVICE – 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course is designed to provide the student with understanding and knowledge to the importance of meeting the needs of customers in a service economy. Students will gain insight into employer and customer expectation of service levels. Emphasis will be placed on developing specific skills and abilities critical to providing excellent customer service. In addition, the student will be introduced to the concepts of internal and external customers, customer satisfaction and customer retention. Topics will also include communicating with customers, developing a positive attitude, handling complaints and sales skills. This course may be offered in a distance learning format.

BUAD 81 STRESS MANAGEMENT IN THE WORKPLACE – .5 Unit (P/NP Only)
Class Hours: 9 lecture total (when offered in the Distance Education format, hours will total 27)
This course is designed to acquaint the student with various skills the supervisor needs to help employees. Included in the recognition of stress and how to manage it, job burnout and what to do about it, and counseling employees in various situations. This course may be offered in a distance learning format.

BUAD 82 MANAGING ORGANIZATION CHANGE – .5 Unit (P/NP Only)
Class Hours: 9 lecture total (when offered in the Distance Education format, hours will total 27)
This course is designed to provide the student with an understanding of change and the influence it has on an organization and the individuals in that organization. Topics will include understanding organizational change, theoretical models of change, stages of change, and how to manage organization change. This course may be offered in a distance learning format.

BUAD 83 CONFLICT RESOLUTION – .5 Unit (P/NP Only)
Class Hours: 9 lecture total (when offered in the Distance Education format, hours will total 27)
This course is designed to provide the student with an analysis of attitudes and behavior, which create conflict between individuals and groups within an organization. This course may be offered in a distance learning format.

BUAD 84 ATTITUDE IN THE WORKPLACE – .5 Unit (P/NP Only)
Class Hours: 9 lecture total (when offered in the Distance Education format, hours will total 27)
This course is designed to provide the student with certain key skills in the area of attitude so that they may effectively maintain a positive attitude at the workplace and at home. The student will be introduced to the concepts of how attitudes are communicated, the three types of attitudes and how to adjust one's attitude. Topics will also include the primary causes of a bad attitude, turnaround strategies to battle these bad attitudes and specific techniques to raise the attitude of others. This course may be offered in a distance learning format.

BUAD 85 CUSTOMER SERVICE IN THE WORKPLACE – .5 Unit (P/NP Only)
Class Hours: 9 lecture total (when offered in the Distance Education format, hours will total 27)
This course is designed to provide the student with certain key skills and attitudes in order to effectively meet the needs of the customers. The student will be introduced to the concept of internal and external customers, customer satisfaction and customer retention. Topics will also include communicating with customers, developing a positive attitude, handling complaints and sales skills. This course may be offered in a distance learning format.

BUAD 86 DECISION MAKING AND PROBLEM SOLVING – .5 Unit (P/NP Only)
Class Hours: 9 lecture total (when offered in the Distance Education format, hours will total 27)
This course is designed to introduce the student to decision making and problem solving as a supervisor. This course may be offered in a distance learning format.

BUAD 87 TEAM BUILDING – .5 Unit (P/NP Only)
Class Hours: 9 lecture total (when offered in the Distance Education format, hours will total 27)
This course is designed to provide the student with an understanding of how teams work together, common problems teams encounter and how to solve them. Students will learn to recognize various team player styles. Students will be introduced to team building in the workplace. This course may be offered in a distance learning format.

BUAD 88 COMMUNICATING WITH PEOPLE – .5 Unit (P/NP Only)
Class Hours: 9 lecture total (when offered in the Distance Education format, hours will total 27)
This course is designed to introduce the student to key elements in communication within business organizations. Topics will include verbal and nonverbal communication, listening skills and specific supervisory communication skills. This course may be offered in a distance learning format.

BUAD 89 TIME MANAGEMENT – .5 Unit (P/NP Only)
Class Hours: 9 lecture total (when offered in the Distance Education format, hours will total 27)
This course is designed to introduce the student to time management principles and specific tools that assist in making maximum use of time. Basic concepts of managing space will also be covered. This course may be offered in a distance learning format.

BUAD 90 VALUES AND ETHICS– .5 Unit (P/NP Only)
Class Hours: 9 lecture total (when offered in the Distance Education format, hours will total 27)
This course is designed to acquaint the student with the importance of values and ethics in the workplace. The importance of values and ethics involved in the supervisor carrying out his/her duties will be emphasized. This course may be offered in a distance learning format.

BUAD 91 PRINCIPLES OF MANAGEMENT – 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This is a basic course to broaden the student's knowledge of the business organization emphasizing how the organizational structure can affect personnel, productivity, and ultimately the success of the firm. This course is required for the business Management Certificate Program and is designed to assist any student who may already be on the lower rungs of the management ladder wishing to become more knowledgeable about organization and management theory. The course should stimulate thought and discussion of several aspects of management and provide a limited opportunity for public speaking. This course may be offered in a distance learning format.

BUAD 94 BUSINESS WORKSITE LEARNING – 1-4 Units
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

BUAD 97 SPECIAL TOPICS IN BUSINESS ADMINISTRATION - .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in business administration. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

BUAD 98 SPECIAL LAB TOPICS IN BUSINESS ADMINISTRATION – .5-2 Units (P/NP Option)
Class Hours: 27-108 lab total
This course is designed to give students an opportunity to explore a variety of activities dealing with changing topics/knowledge in business administration. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

BUAD 106 BUSINESS MATHEMATICS – 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in MATH 240 or Math Placement Level 2 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A required course in several business occupational majors and suggested elective in others. Student entering this class should have a strong foundation of basic arithmetic skills of adding, subtracting, multiplying, and dividing of whole numbers, fractions, decimals, and percentage values. The class consists of applications of these skills to such business problems as markup, simple, discount, and compound interests, trade and cash discounts, insurance, installment buying, and depreciation.
Waiver: Under certain circumstances, this course may be waived for some A.A. degrees or certificate requirements by substituting MATH 102 or higher math course. This course may be offered in a distance learning format.

BUAD 120 STARTING A SMALL BUSINESS – THE ENTREPRENEUR – 1 Unit (P/NP Option)
Class Hours: 18 lecture total (when offered in the Distance Education format, hours will total 54)
A survey course that explores various components that need to be considered for anyone contemplating or currently operating a small business – the Entrepreneur. The major class project will be the development of a basic executive summary of the student's business of choice. This course may be offered in a distance learning format.

BUAD 166 BUSINESS ENGLISH - 3 Units
Prerequisite: English Placement Level 5 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course provides an effective command of written English for transaction of business. Emphasis is given to grammar, spelling, vocabulary, and punctuation, and the format of the business letter, including expository and argumentative writing as well as the necessary information competency skills to select and incorporate reliable data in support of an argument. This is a required course for many majors and certificate programs and an alternative requirement or suggested elective in others. Class also satisfies the A.S. General Education requirement. This course may be offered in a distance learning format.

BUAD 378 BUSINESS AND COMPUTER TUTORING WORKSHOP – 0 Units
Class Hours: TBA
A non-credit course offered t help students overcome learning problems and achieve success in the disciplines of Business and Computer Science. Support is provided by instructors and advanced Business and Computer Science students trained in effective tutoring techniques and support materials. The course is available to any student enrolled in any Business or Computer Technology class.

CASINO MANAGEMENT (CAS)

CAS 10 INTRODUCTION TO CASINO OPERATIONS – 3 Units (P/NP Option)
Class Hours: 54 lecture (when offered in the Distance Education format, hours will total 162)
An orientation into the various aspects of the casino and gaming industry. Includes a study of legal gaming jurisdictions, an introduction to typical casino games, basic playing strategies and money management techniques, customer service, establishment of casino credit, comps, and casino junkets. This course also focuses on the history of casinos and on modern-day trends, career opportunities, and recent innovations in the casino industry. This course may be offered in a distance learning format.

CAS 20 THE HISTORY OF GAMING/NATIVE AMERICAN GAMING – 1 Unit (P/NP Option)
Class Hours: 18 lecture total (when offered in the Distance Education format, hours will total 54)
This course reviews the historical landmarks in the casino and gaming industry within the United States. It focuses primarily on the legalization of gaming in Nevada and California. This course will also examine the economic and employment impacts of gaming on local jurisdictions. Students will also review the current and future developments of gaming. This course may be offered in a distance learning format.

CAS 30 CASINO SURVEILLANCE - 3 Units (P/NP Option)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A review of the fundamentals of casino games including table games, slots, race and sports, and keno. The students become familiar with game protection techniques, rules of evidence, and regulations governing the casino floor. Reporting styles and prosecution procedures will also be addressed. This course may be offered in a distance learning format.

CAS 40 CASINO MANAGEMENT AND OPERATIONS – 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in MATH 240 or Math Placement Level 2 or higher
Advisory: A grade of C or higher in CAS 10
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A thorough examination of the internal management practices used by today's successful casino. Course will focus on gaming regulations and controls, casino marketing, table game management and protection, slot and gaming device management, surveillance procedures, casino staffing, and casino layout and design. Students will also be trained in the methods by which cheating can occur in each of the casino games covered. A glimpse into the future outlook of gaming and career paths in the casino industry shall be included as well. This course may be offered in a distance learning format.

CAS 50 CASINO MARKETING/CONSUMER BEHAVIOR – 3 Units (P/NP Option)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course will discuss concept and marketing strategies behind gaming products and services. This course will evaluate the need for entertainment, VIP parties, design, décor, and "hook" strategies used by casinos to lure customers. Player retention strategies and service qualities will also be included. This course shall also explore the numerous areas of consumer behavior in the gaming industry. Factors of motivation, greed, and the quest for gratification shall be discussed. An insight into pathological gambling as a prelude to a psychological and medical disease will be addressed. This course may be offered in a distance learning format.

CAS 94 CASINO MANAGEMENT WORKSITE LEARNING – 1-4 Units
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

CAS 97 SPECIAL TOPICS IN CASINO MANAGEMENT – .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in casino management. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

CAS 98 SPECIAL LAB TOPICS IN CASINO MANAGEMENT – .5-2 Units (P/NP Option)
Class Hours: 27-108 lab total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in casino management. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

CHEMISTRY (CHEM)

CHEM 1A GENERAL CHEMISTRY – 5 Units (P/NP Option) (CAN# CHEM 2) (CHEM SEQ A)
Prerequisite: A grade of C or higher in CHEM 16 or CHEM 2A, or a score of 20 or higher on the California Chemistry Diagnostic test; and a grade of C or higher in MATH 102 or Math Placement Level 4 or higher. (If you have completed one year of high school chemistry with a grade of C or higher, you will be eligible to enroll in this course once you have seen a counselor.)
Note: Students must provide those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 54 lecture/54 lab/18 discussion
A course for science and engineering majors which covers the nature of atoms, molecules, and ions; chemical reactions; stoichiometry; properties of solids, liquids, gases, and solutions; electronic structure; periodicity; chemical bonding; and an introduction to thermodynamics, equilibrium, and precipitation oxidation-reduction, and acid/base chemistry.

CHEM 1B GENERAL CHEMISTRY – 5 Units (CAN# CHEM 4) (CHEM SEQ A) (P/NP Option)
Prerequisite: A grade of C or higher in CHEM 1A
Note: Students must provide those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 54 lecture/18 discussion/54 lab total
An introduction to chemical kinetics, nuclear chemistry and transition metals, along with continued, in-depth study of thermodynamics, electrochemistry, equilibrium, acid-base and solution chemistry.

CHEM 2A INTRODUCTION TO CHEMISTRY – 5 Units (CAN# CHEM 6) (CHEM SEQ A)
Prerequisite: A grade of C or higher in MATH 101 or Math Placement Level 3 or higher
Note: The lecture/discussion portion of this course may be offered as distance education. Students must provide those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 54 lecture/18 discussion/54 lab total (when offered in the Distance Education format, lecture hours will total 216)
This course is a survey of inorganic chemistry and some organic chemistry suitable for agriculture and nursing students. The basic fundamentals of the metric system, chemical nomenclature, atomic and molecular structure, chemical reactions, energy changes, states of matter, solutions, chemical equilibria and kinetics, and organic functional groups are presented. The quantitative nature of chemistry is developed by introduction of the Avogadro's number and the mole and continuing with stoichiometry, gas law, solution concentrations and pH calculations. The lecture/discussion portion of this course may be offered in a distance learning format.

CHEM 2B INTRODUCTION TO ORGANIC AND BIOCHEMISTRY – 5 Units (CAN # CHEM 8) (CHEM# CHEM SEQ B) (P/NP Option)
Prerequisite: A grade of C or higher in CHEM 2A or CHEM 1A
Note: The lecture/discussion portion of this course may be offered as distance education. Students must provide those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 54 lecture/54 lab/18 discussion total (when offered in the Distance Education format, hours will total 216 for the lecture/discussion portion of this class and an additional 54 hours of lab totaling 270 hours for this course)
A survey of the major classes of organic compounds including structure, nomenclature, properties, reactions, and the reaction mechanisms; an introduction to the biochemistry of proteins, carbohydrates, lipids, nucleic acids and their basic metabolic reactions. Suitable for nursing, dental hygiene, agriculture/natural resources and non-science majors. The lecture/discussion portion of this course may be offered in a distance learning format.

CHEM 6 INTRODUCTORY CHEMISTRY APPLIED TO THE ENVIRONMENT – 4 Units
Prerequisite: A grade of C or higher in MATH 101, or Math Placement Level 3 or higher
Note: Students must provide those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 36 lecture/108 lab total
An introduction to the basic principles of general chemistry. Emphasis will be placed on applications to the chemistry of the environment, soils, water, air, agriculture, natural resources, and related consumer products. This course is suitable for environmental technology, agriculture, natural resources, and liberal arts students.

CHEM 10 CHEMISTRY FOR THE LIBERAL ARTS – 3 Units (P/NP Option)
Note: CHEM 10 will meet the general education requirement for a laboratory science if taken with CHEM 11
Class Hours: 54 lecture (when offered in the Distance Education format, hours will total 162)
A non-mathematical introduction to the major concepts of chemistry with attention to their relevance to practical and societal problems. This course is intended for non-science majors who wish to gain an appreciation for the application of chemistry to everyday living. The course includes such topics as nuclear energy and energy alternatives; health issues of drugs; food additives, nutrition, hormones; chemicals for household use, chemicals in the environment, and synthetics. This course may include field trips. This course may be offered in a distance learning format. This course will meet the general education requirement for a laboratory science if the laboratory course is taken with CHEM 11.

CHEM 11 CHEMISTRY LABORATORY FOR THE LIBERAL ARTS – 1 Unit (P/NP Option)
Corequisite: Students must be concurrently enrolled in, or have completed CHEM 10 with a grade of C or higher
Note: CHEM 10 taken with CHEM 11 meets GE requirement in science. Students must provide those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 54 lab total (when offered in the Distance Education format, hours will total 54)
Laboratory experiments and demonstrations, almost entirely non-mathematical, covering the basic concepts of the lecture course, CHEM 10. The laboratory is designed to help students learn how to use various chemicals around us, safely and effectively. This course may include field trips. This course may be offered in a distance learning format.

CHEM 16 CHEMICAL PROBLEM-SOLVING – 3 Units (P/NP Option)
Advisory: A grade of C or higher in MATH 101 or Math Placement Level 3 or higher
Note: Students must provide those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
An introductory chemistry course for students who plan to major in a scientific field. This course is also designed to prepare students for General Chemistry 1A. The major emphasis of the course will be on chemical problem-solving. This course may be offered in a distance learning format.

CHEM 26 FUNDAMENTALS OF GENERAL, ORGANIC, AND BIOCHEMISTRY – 4 Units
Class Hours: 72 lecture total (when offered in the Distance Education format, hours will total 216)
An introduction to the fundamental principles of general, organic, and biochemistry delivered completely online that will emphasize practical applications to nursing and health professions. This course will fulfill the CSU-Chico requirement for entry to the RN and BSN program and is also suitable for AA degree programs and non-science transfer students. This course may be offered in a distance learning format.

CHEM 70 ORGANIC CHEMISTRY – 4 Units
Prerequisite: A grade of C or higher in CHEM 1B
Note: CHEM 70A should be taken concurrently with CHEM 70 for science majors for transfer
Class Hours: 54 lecture/18 discussion total (when offered in the Distance Education format, hours will total 216)
Structure, bonding, Polar bonds and their consequences, Alkanes and Cycloalkanes, stereochemistry and physical properties of organic compounds. Overview of organic reactions, reactions and mechanisms of alkanes, alkenes, alkynes, organic halides, Nucleophilic substitutions and eliminations. Science majors should take a second semester organic course, CHEM 71, which completes the required two-semester sequence. CHEM 70A, laboratory course, should be taken concurrently for science majors. Check school of transfer for their requirements. This course may be offered in a distance learning format.

CHEM 70A ORGANIC CHEMISTRY LABORATORY – 1 Unit
Prerequisite: A grade of C or higher in CHEM 1B
Corequisite: Students must be concurrently enrolled in, or have completed CHEM 70 with a grade of C or higher
Note: Chemistry majors are required to take CHEM 70A concurrently with CHEM 70. Students must provide those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 54 lab total
Theory and application of organic chemistry laboratory techniques.

CHEM 71 ORGANIC CHEMISTRY – 3 Units
Prerequisite: A grade of C or higher in CHEM 70
Note: CHEM 71A should be taken concurrently with CHEM 71 for science majors for transfer
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A continuation of CHEM 70. Infrared Spectroscopy, Mass Spectrometry, Nuclear Magnetic Resonance, Conjugated Dienes and Ultraviolet Spectroscopy, Benzene and Aromaticity, Chemistry of Benzene, Electrophilic Aromatic Substitution Alcohols and Phenols, Ethers and Epoxides, Thiols and Sulfides, Aldehydes and Ketones, Carboxylic Acids, Carboxylic Acids, Carboxylic Acid Derivatives and Nucleophilic Acyl substitution, Carbonyl alpha-substitution Reactions Carbonyl Condensation, Amines, Carbohydrates, Amino Acids, Peptides and Proteins, Lipids. This course completes a two-semester sequence for science majors. CHEM 71A, laboratory course, should be taken concurrently for science majors. Check school of transfer for their requirements. This course may be offered in a distance learning format.

CHEM 71A ORGANIC CHEMISTRY LABORATORY – 2 Units
Prerequisite: A grade of C or higher in CHEM 70A
Corequisite: Students must be concurrently enrolled in or have completed CHEM 71 with a grade of C or higher
Note: Chemistry majors are required to take CHEM 71A concurrently with CHEM 71. Students must provide those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 108 lab total
A continuation of Organic CHEM 70A. Theory and application of organic chemistry laboratory techniques.

CHEM 97 SPECIAL TOPICS IN CHEMISTRY – .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in chemistry. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

CHEM 98 SPECIAL TOPICS IN CHEMISTRY – LAB SKILLS – .5-2 Units (P/NP Option)
Class Hours: 27-108 lab total
This course is designed to give students an opportunity to explore a variety of topics in a lab setting dealing with changing knowledge in chemistry. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

COMMUNICATION STUDIES (CMST)

CMST 10 INTERPERSONAL COMMUNICATION (formerly SPCH 10/10A) - 3 Units (P/NP Option) (CAN # SPCH 8)
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Class Hours: 54 lecture total
This course is an introduction to the process of human communication with emphasis on interpersonal communication. Emphasis is placed on the psychological, social, cultural, and linguistic factors which affect normal person-to-person interactions. Subjects covered are listening, verbal and nonverbal communication, self-awareness/self-concept, perception, emotions, relationships, communication climates, and conflict management. Students will increase their knowledge and skills in interpersonal communication. College level writing skills will be expected on all papers, outlines and short essays.

CMST 20 INTERCULTURAL COMMUNICATION (formerly SPCH 20) - 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
The purpose of this course is to develop the skills necessary to build and maintain positive communication and relationships across cultures. Students will focus on similarities and differences in communication behaviors. Perceptions, language usage, nonverbal style, thinking modes, and values all will be explored to see how they influence face-to-face communication between individuals of different cultures. This course may be offered in a distance learning format.

CMST 30 ORAL INTERPRETATION (formerly SPCH 30) – 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 190, or a English Placement Level 6 or higher
Class Hours: 54 lecture total
This course is an introduction to the process of human communication with emphasis on the oral interpretation of literature. Subjects covered are analyzing the literature, using nonverbal and verbal communication in the interpretation of literature and the understanding, appreciation and performance of prose and poetry. College level writing skills will be expected on all papers, outlines and short essays. This course includes oral performance of literature.

CMST 40 ARGUMENTATION AND DEBATE (formerly SPCH 40) - 3 Units (CAN # SPCH 6) (P/NP Option)
Advisory: A grade of C or higher in ENGL 190 or English Placement Level 6 or higher; and completion of a class in public speaking or public speaking experience
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course is an introduction to the nature of argument and critical thinking, including methods of analysis, research, critical evaluation of reasoning and evidence, refutation, and debate as a practical application of argumentation. Basic principles are applied in a variety of formal and informal debate situations. Public speaking training and/or experience are recommended for enrollment. This course may be offered in a distance learning format.

CMST 54 SMALL GROUP COMMUNICATION (formerly SPCH 54) - 3 Units (P/NP Option) (CAN # SPCH 10)
Advisory: A grade of C or higher in ENGL 190 or English Placement Level 6 or higher
Class Hours: 54 lecture total
This course is an introduction to the process of human communication with an emphasis on small groups. Subjects covered are preparation for discussion, group participation, leadership, decision-making, interpersonal relations, critical thinking/problem-solving, managing conflict, and evaluation of group interaction. Students will be involved in group interactions and emphasis will be on practical experience. College level writing skills will be expected on all papers, outlines and short essays.

CMST 60 PUBLIC SPEAKING (formerly SPCH 60/60A) – 3 Units (CAN#SPCH 4) (P/NP Option)
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Class Hours: 54 lecture total
This course is an introduction to the process of human communication with emphasis on public speaking. Subjects covered are audience analysis, choosing speech topics, finding and using supporting materials, arranging and outlining related points, essentials of speech delivery and evaluation. College level writing skills will be expected on all papers, outlines and short essays.

CMST 97 SPECIAL TOPICS IN COMMUNICATION STUDIES (formerly SPCH 97/91AD) - .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is an introduction to the process of human communication with an emphasis on public speaking. Subjects covered are analyzing audiences, choosing speech topics, finding and using supporting materials, arranging and outlining related points, demonstrating essentials of speech delivery, and evaluating speeches. Most students will have the opportunity to be videotaped and to use presentational technology. College level writing skills will be expected on all papers, outlines, and short essays.

COMMUNICATIONS (COM)

COM 20 INTRODUCTION TO MULTI-MEDIA – 3 Units (P/NP Option)
Class Hours: 54 lecture total
This class studies how multimedia programs are designed and produced. Professional and amateur productions are extensively analyzed for form, content and overall design effectiveness. The class traces the process of a typical multimedia project from start to finish. This includes design implementation, user analysis, interface and interaction considerations, project management and client needs assessment. The class explores the technical aspects of production, including capturing and compressing sound and visual images. Delivery systems such as the Internet and CD ROM are evaluated. An overview of "tools of the trade" examines a variety of production and editing software. The class is not platform specific nor does it attempt to teach all the software discussed.

COM 21 MULTI-MEDIA AUTHORING – 3 Units (P/NP Option)
Class Hours: 54 lecture total
This course will acquaint you with the process of designing and producing effective multi-media presentations. You will work individually and as a part of a creative team. The focus is on identifying and analyzing audiences; designing, adapting, and organizing information for multi-media presentations. Software such as Final Cut Pro, Adobe Premier and Macromedia Director are complex tools that will be explored. The class also will explore basic planning strategies, production techniques, materials and equipment involved in a computer multimedia production. Students will be expected to complete at least two projects suitable for a portfolio.

COM 22 BEGINNING TV PRODUCTION – 3 Units
Class Hours: 27 lecture/81 lab total
A basic course in the theory and operation of television broadcast equipment. Students will complete projects and activities so that they can effectively operate broadcast equipment and understand its engineering and production capabilities. This is a beginning course in television production.

COM 30 INTRODUCTION TO AUDIO RECORDING – 3 Units (P/NP Option)
Class Hours: 36 lecture/54 lab total
This is an introduction to the fundamentals of audio recording. Concepts covered will be the fundamentals of electricity, musical acoustics and audio theory. Course enrollment is open to communication and non-communication majors. Topics include: basics of electricity, acoustics, psychoacoustics, audio measurement terms and concepts, microphones, mixers, signal processing and hard disk recording.

COM 31 INTRODUCTION TO DIGITAL AUDIO – 3 Units (P/NP Option)
Class Hours: 36 lecture/54 lab total
This is an introduction to the fundamentals of digital audio theory, editing, MIDI sequencing and the production of digital audio for the web and video and a variety of other media. Topics to be covered are digital audio theory, two track digital editing, multi-channel recording, digital sequencing, and time-code. Course enrollment is open to communication and non-communication majors.

COM 97 SPECIAL TOPICS IN COMMUNICATION DESIGN – .5-3 Units (P/NP Option)
Class Hours: 27-162 lab
This course is designed to give students experiential instruction in a variety of communication settings. It focuses on the design, implementation, management, and coordination of the technical elements of production of communication design projects. Students will design multimedia projects, manipulate digital and analog sounds and images, and develop and produce television, radio, or internet content. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. This course may be repeated three times for a total of four enrollments.

COMPUTER INFORMATION SYSTEMS (CIS)

CIS 1 COMPUTER LITERACY WORKSHOP (formerly MIS 19) – 3 Units
Note: Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Math and Business Learning Center. Students taking the Internet format of this course must have access to the latest Microsoft Operating System and Office Suite.
Class Hours: 45 lecture/27 lab total (when offered in the Distance Education format, hours will total 162)
This course is intended to help students achieve a degree of computer literacy through exposure to a variety of basic computer concepts including discussions of hardware, software, computer history, programming, computer ethics, and cultural implications. In addition, the student will be introduced to several hands-on applications such as systems software (Windows), word processing software (MS Word), spreadsheet software (MS Excel), database software (MS Access), and presentation software (MS PowerPoint). This course may be offered in a distance learning format.

CIS 2 INTRODUCTION TO COMPUTER SCIENCE (formerly MIS 20) –4 Units (CAN # CSCI 2)
Class Hours: 72 lecture total (when offered in the Distance Education format, hours will total 216)
This course is designed as an introduction to computer technology for those students planning on a career in the field of computer science or related disciplines. Computer history, hardware, software, processing, systems, programming languages, storage devices, careers, and impact on society will be explored to enable the student to become literate in the technical aspects of computing. Common business applications are used to examine a wide range of methods for processing data in the interactive mode. The students will design, code, and debug programs in languages such as Machine, Assembler, Java, C and/or BASIC as assigned. This course may be offered in a distance learning format.

CIS 3 SYSTEMS ANALYSIS METHODS (formerly MIS 29) – 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
Information Systems Analysis with emphasis on current system documentation through the use of both classical and structured tools/techniques for describing process flows, data structures, file designs, input and output designs and programs specifications. Discussion of the information gathering and reporting activities and of the transition from analysis to design. This course specifically satisfies requirements for the CIS-4 course in the DPMA Education Foundation Model Curriculum for Undergraduate Computer Information Systems Education. This course may be offered in a distance learning format.

CIS 4 BUSINESS DATA COMMUNICATIONS (formerly MIS 30) - 3 Units
Advisory: A grade of C or higher in CIS 1 or CIS 2 or equivalent computer experience recommended for success.
Class Hours: 54 lecture total (when offered in the Distance Education format, hour will total 162)
Covers the concepts, vocabulary, design issues, and techniques currently used in the area of data communications. Topics include history and evolution of the Internet, transmission media, interconnection topology, control methods, protocols, types of nodes, network interfaces, bridges, gateways, performance considerations, maintenance considerations, and security considerations. This course may be offered in a distance learning format.

CIS 5 HELP DESK – LEVEL 1 (formerly MIS 90) – 3 Units (P/NP Option)
Class Hours: 54 lecture total
The program is designed to educate students as computer support specialists in order to compete for positions such as help desk or technical support technicians. Students will examine the different types of help desks, the available help desk career paths, and the kinds of knowledge, skills, and abilities they need to be successful in a help desk environment. They will gain an understanding of how people, processes, technology and information affect the typical help desk structure and how outstanding customer service is the bottom line.

CIS 6 COMPUTER BASICS – .5 Unit (P/NP Only)
Class Hours: 9 lecture total
A brief introductory course in computer basics covering hardware, software, file management, email set-up and use, and internet accessibility.

CIS 10 EXCEL FOR WINDOWS – I (formerly MIS 73) – 1 Unit (P/NP Option)
Advisory: Ability to type 25 wpm
Note: Class will require outside time using a computer with appropriate software. Some access is allowed on campus at the Math and Business Learning Center. Students taking the Internet format of this course must have access to the latest Microsoft Operating System and Office Suite.
Class Hours: 18 lecture/9 lab total (when offered in the Distance Education format, hour will total 63)
This is an introductory course that introduces the concepts, principles, and uses of the EXCEL spreadsheet through multi-media lecture/demonstration/discussion on an IBM compatible microcomputer. Instruction will include use of the Windows environment; creating, editing, formatting, and printing a worksheet; charts/graphs development; and formulas/functions using relative, absolute and mixed cell reference. This course may be offered in a distance learning format.

CIS 11 EXCEL FOR WINDOWS – II (formerly MIS 74) – 1 Unit (P/NP Option)
Advisory: A grade of C or higher in CIS 10. Ability to type 25 wpm
Note: Class will require outside time using a computer with appropriate software. Some access is allowed on campus at the Math and Business Learning Center. Students taking the Internet format of this course must have access to the latest Microsoft Operating System and Office Suite.
Class Hours: 18 lecture/9 lab total (when offered in the Distance Education format, hour will total 63)
Designed to expand and improve worksheet skills through multi-media lecture/demonstration/discussion on an IBM compatible microcomputer. Instruction will include workbook management, control, and protection; utilizing the worksheet as a database, customizing charts/graphs; exchanging data between software programs; and using EXCEL to collaborate over the Internet. This course provides preparation for Microsoft Office User Specialist (MOUS) Excel Certification. This course may be offered in a distance learning format.

CIS 12 EXCEL FOR WINDOWS – III (formerly MIS 75) – 1 Unit (P/NP Option)
Advisory: A grade of C or higher in CIS 11. Ability to type 25 words per minute.
Note: Class will require outside time using a computer with appropriate software. Some access is allowed on campus at the Math and Business Learning Center. Students taking the Internet format of this course must have access to the latest Microsoft Operating System and Office Suite.
Class Hours: 18 lecture/9 lab total (when offered in the Distance Education format, hour will total 63)
Designed to expand and improve worksheet skills to a more advanced level of proficiency through multi-media lecture/demonstration/discussion on an IBM compatible microcomputer. Instruction will include a review of file management and worksheet concepts; macros; filtering, subtotaling, and validating data lists; worksheets analysis tools – input areas, Scenario Summary, data tables, Goal Seek, Solver and Pivot Tables; customizing and controlling the worksheet; workgroups; and VBA (Visual Basic Applications). This course provides preparation for Microsoft Office User Specialist (MOUS) Excel Certification, Expert. This course may be offered in a distance learning format.

CIS 20 ACCESS FOR WINDOWS – I (formerly MIS 53) – 1 Unit (P/NP Option)
Advisory: Ability to type 25 wpm
Note: Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Math and Business Learning Center. Students taking the Internet format of this course must have access to the latest Microsoft Operating System and Office Suite.
Class Hours: 18 lecture/9 lab total (when offered in the Distance Education format, hour will total 63)
This course introduces the concepts, principles, and creation of relational databases through multi-media lecture/demonstration/discussion using Microsoft ACCESS on an IBM compatible microcomputer. Topics to be covered will include: the principles and elements of the relational database; design of tables and data entry; maintenance of the database for data accuracy; queries for sorting, linking related tables, and selecting specific records; development of forms for viewing as well as entering data; and reports for presenting printed copy of the database and/or selected records. This course may be taught in a distance learning format.

CIS 21 ACCESS FOR WINDOWS – II (formerly MIS 54) - 1 Unit (P/NP Option)
Prerequisite: A grade of C or higher in CIS 20 or a grade of C or higher in CIS 23
Advisory: Ability to type 25 wpm
Note: Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Math and Business Learning Center. Students taking the Internet format of this course must have access to the latest Microsoft Operating System and Office Suite.
Class Hours: 18 lecture/9 lab total (when offered in the Distance Education format, hour will total 63)
Designed to expand and improve database management skills through multi-media lecture/demonstration/discussion on an IBM compatible microcomputer. Instruction will include a review of database concepts; queries involving linked tables, logical operators, calculated fields, and crosstab and update queries; presentation of data through forms and reports (including field calculations and graphics); creating hyperlinks among programs and web pages; and advanced queries. This course provides preparation for Microsoft Office User Specialist (MOUS) Access Certification. This course may be offered in a distance learning format.

CIS 22 ACCESS FOR WINDOWS – III (formerly MIS 55) – 1 Unit (P/NP Option)
Prerequisite: A grade of C or higher in CIS 21
Note: Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Math and Business Learning Center. Students taking the Internet format of this course must have access to the latest Microsoft Operating System and Office Suite.
Class Hours: 18 lecture/9 lab total (when offered in the Distance Education format, hours will total 63)
Designed to expand and improve database management skills to a more advanced level of proficiency through multi-media lecture/demonstration/discussion on an IBM compatible microcomputer. Instruction will include a review of database concepts; management, maintenance, and protection of the database and its objects; development and use of macros and modules; customizing forms and reports; providing user-friendly access; and analyzing database performance. This course provides preparation for Microsoft Office User Specialist (MOUS) Access Certification, Expert. This course may be offered in a distance learning format.

CIS 23 INTRODUCTION TO DATABASE MANAGEMENT – 3 Units
Advisory: A grade of C or higher in CIS 1
Class Hours: 45 lecture/27 lab total (when offered in the Distance Education format, hours will total 162)
This course is designed to provide individuals with a complete introduction to database concepts and the relational database model. Topics include QBE, SQL, normalization, design methodology, DBMS functions, database administration, and other database management approaches, such as client/server databases, object oriented databases, and data warehouses. At the completion of this course, students should be able to understand a user's database requirements and translate those requirements into a valid database design. Microsoft Access is used to illustrate database design concepts. The concepts and skills taught in this course include but go well beyond the level of the Access for Windows I course. This course may be offered in a distance learning format.

CIS 31 CISCO CCNA 1 - NETWORKING FOR HOME AND SMALL BUSINESSES (formerly MIS 32/MIS 1) – 3 Units
Advisory: A grade of C or higher in CIS 2
Class Hours: 45 lecture/27 lab total (when offered in the Distance Education format, hours will total 162)
This course is the first in a two-course series designed to prepare students for the Cisco Certified Entry Network Technician (CCENT) exam, and the course is the first of a four-course series designed to prepare students for the Cisco Certified Networking Associate (CCNA) exam. This course is offered by Shasta College as the Cisco Regional Networking Academy in the area. Instructional materials developed by Cisco Systems are utilized for the course. The course teaches students the skills needed to obtain entry-level home network installer jobs. It also helps students develop some of the skills needed to become network technicians, computer technicians, cable installers, and help desk technicians. It provides a hands-on introduction to networking and the Internet using tools and hardware commonly found in home and small business environments. Labs include PC installation, Internet connectivity, wireless connectivity, file and print sharing, and the installation of game consoles, scanners, and cameras. This course may be offered in a distance learning format.

CIS 32 CISCO CCNA 2 – WORKING AT A SMALL-TO-MEDIUM BUSINESS OR ISP (formerly MIS 32/MIS 2) – 3 Units
Prerequisite: A grade of C or higher in CIS 31
Class Hours: 45 lecture/27 lab total (when offered in the Distance Education format, hours will total 162)
This course is the second in a two-course series designed to prepare students for the Cisco Certified Entry Network Technician (CCENT) exam, and the course is the second of a four-course series designed to prepare students for the Cisco Certified Networking Associate (CCNA) exam. This course is offered by Shasta College as the Cisco Regional Networking Academy in the area. Instructional materials developed by Cisco Systems are utilized for the course. The course prepares students for jobs as network technicians. It also helps students develop additional skills required for computer technicians and help desk technicians. It provides a basic overview of routing and remote access, addressing, and security. It familiarizes students with servers that provide email services, Web space, and authenticated access. Students learn soft skills required for help desk and customer service positions. Network monitoring and basic troubleshooting skills are taught in context. This course may be offered in a distance learning format.

CIS 33 CISCO CCNA 3 – ROUTING AND SWITCHING IN THE ENTERPRISE (formerly MIS 33/MIS 3) – 3 Units
Prerequisite: A grade of C or higher in CIS 32
Class Hours: 45 lecture/27 lab total (when offered in the Distance Education format, hours will total 162)
This course is the third in a four-course series designed to prepare students for Cisco Certified Networking Associate (CCNA) exam. The course is offered by Shasta College as the Cisco Regional Networking Academy in the area. Instructional materials developed by Cisco Systems are utilized for the course. The course familiarizes students with the equipment applications and protocols installed in enterprise networks, with a focus on switched networks, IP Telephony requirements, and security. It also introduces advanced routing protocols including Enhanced Interior Gateway Routing Protocol (EIGRP) and Open Shortest Path First (OSPF) Protocol. Other specific topics include Virtual LANs, Access Control Lists, and inter-VLAN routing. Hands-on exercises include configuration, installation, and troubleshooting. This course may be offered in a distance learning format.

CIS 34 CISCO CCNA 4 – DESIGNING AND SUPPORTING COMPUTER NETWORKS (formerly MIS 34/MIS 4) – 3 Units
Prerequisite: A grade of C or higher in CIS 33
Class Hours: 45 lecture/27 lab total (when offered in the Distance Education format, hours will total 162)
This course is the fourth in a four-course series designed to prepare students for Cisco Certified Networking Associate (CCNA) exam. The course is offered by Shasta College as the Cisco Regional Networking Academy in the area. Instructional materials developed by Cisco Systems are utilized for the course. Learners progress through a variety of case studies and role-playing exercises, which include gathering requirements, designing basic networks, establishing proof-of-concept, and performing project management tasks. Lifecycle services; including upgrades, competitive analysis, and system integration, are presented in the context of pre-sales support. This course may be offered in a distance learning format.

CIS 35 CISCO CCNP 1 – BUILDING SCALABLE INTERNETWORKS (formerly MIS 5) – 3 Units
Prerequisite: A grade of C or higher in CIS 34 or CCNA Certification
Note: CIS 35, CIS 36, CIS 37 and CIS 38 may be taken in any order
Class Hours: 36 lecture/54 lab total (when offered in the Distance Education format, hours will total 162)
CIS 35 is one of a four-course series designed to prepare students for the Cisco Certified Networking Professional (CCNP) exams. This course is offered by Shasta College as the Cisco Regional and Local Networking Academy in the area. Instructional materials developed by Cisco System are utilized for the course. The course introduces students to scalable IP networks. Students will learn how to create an efficient and expandable enterprise network by installing, configuring, monitoring, and troubleshooting network infrastructure equipment (especially routers). Topics include how to configure EIGRP, OSPF, IS-IS, and BGP routing protocols and how to manipulate and optimize routing updates between these routing protocols. Other topics include multicast routing, IPv6, and DHCP configuration. This course may be offered in a distance learning format.

CIS 36 CISCO CCNP 2 – IMPLEMENTING SECURE CONVERGED WIDE-AREA NETWORKS (formerly MIS 6) – 3 Units
Prerequisite: A grade of C or higher in CIS 34 or CCNA Certification
Note: CIS 35, CIS 36, CIS 37, and CIS 38 may be taken in any order
Class Hours: 36 lecture/54 lab total (when offered in the Distance Education format, hours will total 162)
CIS 36 is one of a four course series designed to prepare students for the Cisco Certified Networking Professional (CCNP) exams. This course is offered by Shasta College as the Cisco Regional and Local Networking Academy in the area. Instructional materials developed by Cisco System are utilized for the course. The course introduces students to providing secure enterprise-class network service for teleworkers and branch sites. Students will learn how to secure and expand the reach of an enterprise network with focus on VPN configuration and securing network access. Topics include teleworker configuration and access, frame-mode MPLS, site-to-site IPSEC VPN, Cisco EZVPN, strategies used to mitigate network attacks, Cisco device hardening and IOS firewall features. This course may be offered in a distance learning format.

CIS 37 CISCO CCNP 3 – BUILDING MULTI-LAYER SWITCHED NETWORKS (formerly MIS 7) – 3 Units
Prerequisite: A grade of C or higher in CIS 34 or CCNA Certification
Note: CIS 35, CIS 36, CIS 37, and CIS 38 may be taken in any order
Class Hours: 36 lecture/54 lab total (when offered in the Distance Education format, hours will total 162)
CIS 37 is one of a four course series designed to prepare students for the Cisco Certified Networking Professional (CCNP) exams. This course is offered by Shasta College as the Cisco Regional and Local Networking Academy in the area. Instructional materials developed by Cisco Systems are utilized for the course. This hands-on, lab-oriented course stresses the design, implementation, operation, and troubleshooting of multilayer switched networks in a campus LAN environment. Specific topics include VLANs, Spanning Tree Protocol, Inter-VLAN routing, high availability, wireless client access, security, and switch configuration to support voice. This course may be offered in a distance learning format.

CIS 38 CISCO CCNP 4 – OPTIMIZING CONVERGED NETWORKS (formerly MIS 8) – 3 Units
Prerequisite: A grade of C or higher in CIS 34 or CCNA Certification
Note: CIS 35, CIS 36, CIS 37, and CIS 38 may be taken in any order
Class Hours: 36 lecture/54 lab total (when offered in the Distance Education format, hours will total 162)
CIS 38 is the last course in a four course series designed to prepare students for the Cisco Certified Networking Professional (CCNP) exams. This course is offered by Shasta College as the Cisco Regional and Local Networking Academy in the area. Instructional materials developed by Cisco Systems are utilized for the course. The course introduces students to optimizing and providing effective QOS techniques in converged networks operating voice, wireless and security applications. Topics include implementing a VOIP network, implementing QoS on converged networks, specific IP QoS mechanisms for implementing the DiffServ QoS model, AutoQoS, wireless security and basic wireless management. This course may be offered in a distance learning format.

CIS 39 CISCO NETWORKING – FUNDAMENTALS OF NETWORK SECURITY - 3 Units
Advisory: A grade of C or higher in CIS 34 or CCNA Certification
Class Hours: 45 lecture/27 lab total
This course is offered by Shasta College in its role as a Cisco Local Networking Academy. This course prepares students for the Cisco SECUR and CSPFA certifications, and the Comptia Security+ certifications. These are widely recognized certifications in the network security field. Obtaining this certification will provide Shasta College students with a competitive advantage in advancing to skilled technician positions in the high-demand job markets of computer and network security. Topics that will be addressed include: Vulnerabilities and threats, security policy, security technologies and solutions, firewall and secure router design, switch security, intrusion detection, access lists, VPNs, hands-on equipment configuration.

CIS 50 INSTALL, CONFIGURE, AND ADMNISTER MS WINDOWS XP PROFESSIONAL – 1 Unit
Class Hours: 9 lecture/27 lab total
A Microsoft Certified Professional course. The terminology, planning, installation, configuring, administering and troubleshooting of Microsoft Windows XP Professional will be covered. This course is specifically designed to prepare the student to successfully participate in the Installing, Configuring, and Administering Microsoft Windows XP Professional examination to become a Microsoft Certified Professional (MCP).

CIS 51 MANAGE AND MAINTAIN A MS WINDOWS SERVER 2003 ENVIRONMENT – 1 Unit
Class Hours: 9 lecture/27 lab total
The terminology, managing, maintaining, configuring, administering and troubleshooting of Microsoft Windows Server 2003 will be covered. This course is specifically designed to prepare the student to successfully participate in the Managing and Maintaining Microsoft Windows Server 2003 Environment examination to become a Microsoft Certified Professional (MCP).

CIS 52 MANAGE AND MAINTAIN WINDOWS 2003 NETWORK INFRASTRUCTURE – 1 Unit
Class Hours: 9 lecture/27 lab total
The terminology, implementing, managing, maintaining, configuring, administering and troubleshooting of Microsoft Windows Server 2003 network infrastructure will be covered. This course is specifically designed to prepare the student to successfully participate in the Implementing, Managing and Maintaining Microsoft Windows Server 2003 Network Infrastructure examination to become a Microsoft Certified Professional (MCP).

CIS 53 PLAN AND MAINTAIN WINDOWS 2003 NETWORK INFRASTRUCTURE – 1 Unit
Class Hours: 9 lecture/27 lab total
The terminology, planning, and maintaining, a Microsoft Windows Server 2003 network infrastructure will be covered. This course is specifically designed to prepare the student to successfully participate in the Planning and Maintaining Microsoft Windows Server 2003 Network Infrastructure examination to become a Microsoft Certified Professional (MCP).

CIS 54 PLAN, IMPLEMENT AND MAINTAIN WINDOWS 2003 AD NETWORK INFRASTRUCTURE – 1 Unit
Class Hours: 9 lecture/27 lab total
The terminology, planning, implementing and maintaining a Microsoft Windows Server 2003 active directory infrastructure will be covered. This course is specifically designed to prepare the student to successfully participate in the Planning, Implementing and Maintaining Microsoft Windows Server 2003 Active Directory Infrastructure examination to become a Microsoft Certified Professional (MCP).

CIS 55 DESIGNING A WINDOWS SERVER 2003 AD AND NETWORK INFRASTRUCTURE – 1 Unit
Class Hours: 9 lecture/27 lab total
The terminology and design of a Microsoft Windows Server 2003 Active Directory network infrastructure will be covered. This course is specifically designed to prepare the student to successfully participate in the Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure examination to become a Microsoft Certified Professional (MCP).

CIS 56 DESIGNING SECURITY FOR A WINDOWS SERVER 2003 NETWORK – 1 Unit
Class Hours: 9 lecture/27 lab total
The terminology and design of security for a Microsoft Windows Server 2003 Network will be covered. This course is specifically designed to prepare the student to successfully participate in the Designing Security for a Windows Server 2003 Network examination to become a Microsoft Certified Professional (MCP).

CIS 57 INTRODUCTION TO COMPUTERS THROUGH GAMING – 3 Units
Class Hours: 36 lecture/54 lab total
This course is designed to get students interested in the computer field by teaching concepts as they relate to computer gaming. The course will cover the necessary computer troubleshooting and repair, networking, internet research, and overall computer knowledge needed to use sophisticated networked and online games. This course will include hands-on activities such as labs and projects to further learning and experience.

CIS 60 VISUAL BASIC PROGRAMMING (formerly BUSI 27/MIS 27) - 3 Units (CAN# CSCI 6)
Advisory: A grade of C or higher in CIS 2
Class Hours: 36 lecture/54 lab total
This course is intended to teach programming techniques using Visual Basic language. Students will be introduced to Visual Basic statements including, but not limited to input, output, computation, looping, arrays, subroutines, file processing commands, form layout, objects, events and Visual Basic tools. Students will design, code, test and execute several detailed business-oriented programs ranging from very simple to complex.

CIS 61 C++ LANGUAGE PROGRAMMING (formerly MIS 25) - 3 Units (CAN # CSCI 16)
Advisory: A grade of C or higher in CIS 2
Class Hours: 36 lecture/54 lab total
A study of the C++ Programming language. Emphasis is placed on programming theory and structure including data types, selection and interation structures, functions, arrays, pointers, graphics, objects and classes.

CIS 62 JAVA PROGRAMMING (formerly MIS 17) - 3 Units
Advisory: A grade of C or higher in CIS 2
Class Hours: 36 lecture/54 lab total
Java is a platform-neutral, object-oriented, and secure programming language that is quickly becoming the standard programming language for creating interactive content on the World Wide Web (WWW). This course covers Java programming language and the standard Java class libraries.

CIS 63 ASSEMBLER LANGUAGE PROGRAMMING (formerly MIS 24) - 4 Units (CAN # CSCI 10)
Prerequisite: A grade of C or higher in CIS 2, and a grade of C or higher in one of the following courses: CIS 60, CIS 61, or CIS 62.
Class Hours: 54 lecture/54 lab total
In this course students will learn the functions and organization of a modern computer microprocessor including control unit, ALU, register files, cache memory, program counter, and instruction register. The internal binary representation of both data and instructions will be studied including ASCII characters, instruction formats, and two's complement number system. Emphasis will be placed on understanding machine language instruction formats and developing computer programs in assembly language. Integer instruction sets will be the primary focus, but floating point instructions will be introduced. A pseudocoding technique will be learned which will facilitate development of code in assembly language. Programming techniques and concepts will be studied including function calls, argument passing, use of the stack, array handling, sorting and searching, reentrant coding, recursive programming, exceptions and interrupts, pipelining, number conversions, and program debugging and documentation. This course is designed to meet transfer requirements in computer science to four-year universities.

CIS 64 WEB PROGRAMMING USING JAVA/PHP/FLASH – 3 Units (P/NP Option)
Advisory: A grade of C or higher in CIS 2
Class Hours: 36 lecture/54 lab total
Java is a platform-neutral, object-oriented, and secure programming language that is quickly becoming the standard programming language for creating interactive content on the World Wide Web (WWW). PHP (Hypertext Preprocessor) is a programming language that allows web developers to create dynamic content that interacts with databases. PHP is basically used for developing web-based software applications. Adobe Flash Professional is used to create content for the Adobe Engagement Platform (such as web applications, games and movies, and content for mobile phones and other embedded devices).This course covers Introductory Java Applets, PHP Scripting, and Adobe Flash programming.

CIS 70 WINDOWS I (formerly MIS 45/OAS 74) - 1 Unit (P/NP Option)
Note: Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Math and Business Learning Center.
Class Hours: 18 lecture/9 lab total (when offered in the Distance Education format, hours will total 63)
This course is designed to familiarize students with Microsoft Windows. It is a hands-on course designed to give the student a beginning knowledge of Windows' graphical user interface. Topics covered will include manipulating Windows, using Help, launching and running multiple applications, transferring information between applications, and managing files and folders on a disk with Explorer and My Computer. This course may be offered in a distance learning format.

CIS 71 WINDOWS II (formerly MIS 46) – 1 Unit (P/NP Option)
Advisory: A grade of C or higher in CIS 70
Note: Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Math and Business Learning Center.
Class Hours: 18 lecture/9 lab total
This course extends beyond the basics of the Windows' graphical user interface. Topics will include sharing data between applications, using Print manger, customizing folders and toolbars, advanced file management and system maintenance. Multimedia and communications will be introduced.

CIS 72 FUNDAMENTALS OF UNIX – 3 Units
Advisory: A grade of C or higher in CIS 2 and a grade of C or higher in CIS 90
Class Hours: 45 lecture/27 lab total
Fundamentals of Unix is an introductory course for new users of the UNIX operating environment. Students will learn fundamental command-line features of UNIX including file system navigation, changing file permissions, directory management, the vi and emacs text editors, Korn and Bash shell features, backup/archive and recovery, and basic network use. The course teaches how to use the UNIX operating system and introduces the CDE, GNOME, and KDE graphical user interface (GUI). The course will utilize both the Linux and Sun Solaris versions of the UNIX operating system, as well as GUI features that include Application Managers, File Managers, Text Editors, printing and mail.

CIS 73 PHOTOSHOP – 1 Unit (P/NP Option)
Advisory: A grade of C or higher in CIS 70 or basic knowledge of word processing and Windows
Class Hours: 9 lecture/27 lab total
This course is designed to introduce students to image editing and graphic rendering and design using Adobe Photoshop. This course should enable students to develop their own graphics and text styles with little or no previous training in graphic arts.

CIS 74 DIGITAL PHOTO EDITING WITH PHOTOSHOP – 1 Unit (P/NP Option)
Advisory: A grade of C or higher in CIS 70 or basic knowledge of Windows
Class Hours: 9 lecture/27 lab total
This course is designed to introduce students to basic digital photo restoration, repairing, and rebuilding techniques using Adobe Photoshop. This course should enable students to restore, repair, and rebuild digital photos with little or no previous training in graphic arts.

CIS 75 DIGITAL MULTIMEDIA – 1 Unit (P/NP Option)
Advisory: A grade of C or higher in CIS 70 or basic knowledge of Windows
Class Hours: 9 lecture/27 lab total
This course is designed to introduce students to the basics of using digital multimedia such as digital photos, video, and sound. This course should enable students to extract digital media from devices and prepare the digital media for use on the web, personal computers, and televisions. They will learn how to convert file types for optimal performance in various settings and store the media in different forms for easy retrieval. Digital cameras, video recorders, and digital music have become mainstream technologies as well as digitizing traditional analog media. There has been an increasing demand from consumers and employers for the skills taught in this course.

CIS 79 ADVANCED WEB DESIGN USING DREAMWEAVER AND ADOBE – 2 Units (P/NP Option)
Advisory: A grade of C or higher in CIS 70 or basic knowledge of word processing and Windows
Class Hours: 27 lecture/27 lab total
This course introduces advanced concepts in web design, application development, and web hosting. This course will use dreamweaver and other adobe products such as PhotoShop, Flash, and Fireworks. This course introduces web applications and databases using ASP, PHP, Cold Fusion and AJAX.

CIS 80 INTERNET BASICS (formerly MIS 81) - 1 Unit (P/NP Option)
Class Hours: 18 lecture/9 lab total (when offered in the Distance Education format, hours will total 63)
This course is designed to familiarize students with the Internet. It is a hands-on course that will provide the student with an understanding of what the Internet is and a working knowledge of the hardware and software used to access the Internet, how to use e-mail, searching, newsgroups, etc. This course may be offered in a distance learning format.

CIS 81 WEB DESIGN (FRONTPAGE I) (formerly MIS 80) – 1 Unit (P/NP Option)
Advisory: Basic knowledge of word processing, Windows, and the Internet
Note: Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Math and Business Learning Center. Students taking the Internet format of this course must have access to the latest Microsoft Operating System and Office Suite.
Class Hours: 18 lecture/9 lab total (when offered in the Distance Education format, hours will total 63)
This course introduces the student through lecture and hands-on operation to the use of Microsoft FrontPage, a web authoring software. Focus is on the functions of creating, editing, saving, and publishing Web pages. Topics include formatting text, graphical elements, hypertext links, lists, tables, forms, and other active web authoring elements. This course may be offered in a distance learning format.

CIS 82 WEB DESIGN (FRONTPAGE II) – 1 Unit (P/NP Option)
Prerequisite: A grade of C or higher in CIS 81
Note: Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Math and Business Learning Center.
Class Hours: 18 lecture/9 lab total (when offered in the Distance Education format, hours will total 63)
This course introduces the student through lecture and hands-on operation to the use of advanced elements of the page authoring software used in the Web Page Design I course. Microsoft FrontPage and other web authoring tools will be demonstrated and used. Focus is on the advanced functions of creating, editing, saving, and publishing Web pages. Topics include advanced design principles, advanced graphical elements, page transitions, hit counters, hyperlink hot spots, creation of sub-webs and discussion webs, creation of PDF files and forms, and other active web authoring elements. This course may be offered in a distance learning format.

CIS 83 WEB DESIGN USING DREAMWEAVER – 2 Units (P/NP Option)
Advisory: A grade of C or higher in CIS 70 or basic knowledge of word processing and Windows
Class Hours: 27 lecture/27 lab total
This course is designed to introduce students to Web site development using Macromedia Dreamweaver. It will also introduce the students to Flash, Shockwave, CSS and Dynamic Web pages.

CIS 86 HTML – 3 Units (P/NP Option)
NOTE: This class does not require any special software. Assignments may include work outside class, with the use of computer with standard browsers like Internet Explorer or Netscape Navigator. Some computer access is provided on campus at the Math and Business Learning Center and at the Learning Resources Center.
Class Hours: 54 lecture (when offered in the Distance Education format, hours will total 162)
This is a fundamental course on the Hypertext Markup Language for web page authoring, with lecture and hands-on classes. The topics include: the HTML "TAG" structure, the basic <HTML>, <HEAD> and <BODY> components of a web document, text formatting, creation of hyperlinks, inclusion of images, the use of tables, frame and form structures, and incorporation of multimedia, applets and javascripts. The editing, saving and publishing of web pages is performed with the basic tools provided with any of the currently available Windows platforms; no special software is needed for the class. This course may be offered in a distance learning format.

CIS 90 A+ CERTIFICATION PREPARATION/CISCO IT ESSENTIALS I – 4 Units
Advisory: A grade of C or higher in CIS 2
Note: This course replaces ELEC 20, 21, 22, 23 and 24 for A+ Certification
Class Hours: 54 lecture/54 lab total (when offered in the Distance Education format, hours will total 216)
This course provides the student with the knowledge and skills to pass the A+ Core Hardware and the A+ OS Technologies certification tests. The CompTIA A+ certification exams are nationally recognized, and measures essential competencies for an entry-level computer technician. Topics covered are microcomputer architecture, personal computer hardware, including Microsoft Windows installations, configurations and troubleshooting. Students learn how to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. This course may be offered in a distance learning format.

CIS 92 INTRODUCTION TO COMPUTER SECURITY – SECURITY + – 3 Units
Advisory: A grade of C or higher in CIS 31
Class Hours: 45 lecture/27 lab total
This course provides the student with background, requirements, policies and procedures for establishing and maintaining computer and information system security. Course elements include: Risk discovery and assessment; system planning with cost/benefits analyses; management policies; security practices and procedures within system life cycles and system recovery. The course will stress applied solutions to computer security problems, preparing students for the CompTIA Security+ Certification exam.

CIS 94 COMPUTER INFORMATION SYSTEMS WORKSITE LEARNING – 1-4 Units (P/NP Option)
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

CIS 97 SPECIAL TOPICS IN MANAGEMENT INFORMATION SYSTEMS (formerly MIS 97) - .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in management information systems. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

CIS 98 SPECIAL LAB TOPICS IN MANAGEMENT INFORMATION SYSTEMS (formerly MIS 98) - .5-2 Units (P/NP Option)
Class Hours: 27-108 lab total
This course is designed to give students an opportunity to explore a variety of activities dealing with changing topics/knowledge in management information systems. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

CIS 197 SPECIAL TOPICS IN COMPUTER TECHNOLOGY (formerly MIS 197) - .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in the field of office technology. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommend for any of the Office Technologies majors or Business majors; open to anyone with an interest in the topic
Note: This course may be repeated three times for a total of four enrollments.

CIS 198 SPECIAL LAB TOPICS IN COMPUTER TECHNOLOGY (formerly MIS 198) - .5-2 Units (P/NP Option)
Class Hours: 27-108 lab total
This course is designed to give students an opportunity to explore a variety of activities dealing with changing topics/knowledge in computer technology. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

CONSTRUCTION TECHNOLOGY (CONS)

CONS 45 CAREER PLANNING AND LEADERSHIP FOR HEAVY EQUIPMENT OPERATORS - 2 Units
Class Hours: 36 lecture total
Career opportunities and training requirements in the field of Heavy Equipment Operations will be examined. Students will be assisted in identifying career opportunities and developing career goals. Leadership skills dealing with organizing a meeting, public speaking, and leadership styles will be covered. This class is required of all Equipment Operations and Maintenance students.

CONS 46 EQUIPMENT OPERATIONS & MAINTENANCE (formerly AGRI 46/ENVR 46) - 3 Units (P/NP Option)
Limitation on Enrollment: Student must produce a negative test result in accordance with the Shasta College Student Substance Abuse Testing Policy at a student cost to be paid to the designated testing facility.
Class Hours: 27 lecture/81 lab total
This class covers basic skill-level operation and maintenance of on- and off-road heavy equipment including agriculture and earth moving. Students will not be allowed to operate road equipment without license and driving record. Operational equipment used may include any of the following: dump truck, grader, backhoe, dozer, farm tractor, loader, excavator, forklift, and scraper.

CONS 47 PROJECT CONSTRUCTION FOR EQUIPMENT OPERATIONS (formerly ENVR 47, AGRI 47) - 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in CONS 46 and a grade of C or higher in CONS 48
Note: Students will not be allowed to operate road equipment without a proper license and driving record. Students must be enrolled in the college's random drug testing program.
Class Hours: 27 lecture/81 lab total
This class teaches intermediate skill-level operation and maintenance of off-road and on-road heavy equipment. It also covers common project construction techniques utilizing heavy equipment with an emphasis on environmental concerns.

CONS 48 SURVEYING FOR EQUIPMENT OPERATORS (formerly AGRI 48) - 2 Units (P/NP Option)
Advisory: A grade of C or higher in MATH 100
Class Hours: 18 lecture/54 lab total
This course teaches basic surveying techniques and concepts with emphasis on application for heavy equipment operators. It involves basic problem solving, grade setting and checking, leveling, distance measurement, cut-fill ratio, and basic mapping. The course has a heavy emphasis on field work using various equipment and instruments including levels, compasses tapes, as well as various state-of-the-art electronic surveying devices. This course will prepare students for work on a heavy equipment construction crew.

CONS 52 RESIDENTIAL ESTIMATING - 3 Units
Class Hours: 54 lecture total
This course is designed for learning construction-estimating techniques for both small and medium sized construction projects. It includes estimating materials, costs, labor, taxes, insurance fees, overhead, profit, transportation and contingencies common in the residential construction industry. In this class students will be responsible for interpreting blueprints, developing budgets and estimates, as well as planning a construction project representative of current industry activity.

CONS 53 MATERIALS OF CONSTRUCTION - 3 Units
Class Hours: 54 lecture total
A residential building materials course covering building materials from concrete to various types of roofing. Course covers code requirements, application and construction techniques. In this course, students will become familiar with traditional and current construction materials and their use.

CONS 55 EQUIPMENT OPERATIONS SKILLS DEVELOPMENT (formerly AGRI 56EH/AGRI 55/ENVR 55) - 1-4 Units (P/NP Option)
Prerequisite: A grade of C or higher in CONS 46
Limitation on Enrollment: Student must produce a negative test result in accordance with Shasta College Student Substance Abuse Testing Policy at a student cost to be paid to the designated testing facility.
Class Hours: 54 lab hours per unit
The practical application of skills needed to be successful in equipment operation. Includes farm and industrial equipment such as wheel and crawler tractors, forklift, backhoe, motor grader and scraper. Service and adjustment will also be a part of this course. Required of all transfer agriculture, production agriculture, and ornamental horticulture majors. Note: This course may be repeated three times for a maximum of four enrollments since course content varies and skills are enhanced by supervised repetition and practice.

CONS 71 WOODWORKING (formerly CONS 71A) – 3 Units
Class Hours: 36 lecture/54 lab total
Course is designed to develop interest in the fundamentals of woodworking. Instruction is given on safety, wood identification, proper gluing techniques, abrasives, and proper use of hand tools, power and pneumatic tools on machinery.

CONS 72 CABINETMAKING (formerly CONS 71B) – 3 Units
Prerequisite: A grade of C or higher in CONS 71
Class Hours: 36 lecture/54 lab total
This course will enable the student to have an understanding of cabinet standards, typical types found in most kitchens, bathrooms and garages. Styles of kitchens, types of layouts for all four basic case type cabinets. Be able to select counter tops, drawer construction and door construction.

CONS 73 FURNITURE AND CABINET FINISHING (formerly CONS 71C) - 3 Units
Prerequisite: A grade of C or higher in CONS 71
Class Hours: 36 lecture/54 lab total
This course is designed to teach inorganic as well as organic finishing in vocational and industrial applications. It is divided into sections which describe various categories in the broad field of cabinet finishing.

CONS 74 TRIM AND DETAIL FINISHING (formerly CONS 71D) - 3 Units
Prerequisite: A grade of C or higher in CONS 71
Class Hours: 36 lecture/54 lab total
This course will provide essential knowledge and skill related to deck, closet treatments, inside and outside window and door treatments.

CONS 84 ANALYSIS OF CONSTRUCTION DRAWINGS AND SPECIFICATIONS - 3 Units
Class Hours: 54 lecture total
An in-depth study of construction plans and specifications, including reading and interpreting construction documents from various private and public designers and determining quantities and types of materials used in both building and general engineering construction.

CONS 94 CONSTRUCTION TECHNOLOGY WORKSITE LEARNING - 1-4 Units
Limitation on Enrollment: During regular semesters, students must enroll in a minimum of seven units including the Worksite Learning course. During summer sessions, students must enroll in one other class in addition to the Worksite Learning course. Students must have completed 30 units of required construction technology course work.
Class Hours: 75 hours paid or 60 hours non-paid per unit
This course is designed for employment on approved jobs related to the students major and is supervised by a College representative to ensure that the work experience is of educational value. Good work habits through actual job performance is stressed. One to four units per semester may be taken depending on hours and nature of jobs. One unit of worksite learning credit is granted for 75 hours paid or 60 hours non-paid of on-the-job activity. Note: This course may be repeated three times for a total of four enrollments since content differs and skills are enhanced by supervised repetition and practice.

CONS 148 SURVEYING AND GRADE SETTING FOR CONSTRUCTION (formerly AGRI 148) - 1 Unit (P/NP Only)
Note: Previous construction experience will be helpful
Class Hours: 9 lecture/27 lab total
This is an advanced level course designed to give the participants practical skills and knowledge in the latest technology and applications related to surveying for construction and grade setting. The course will emphasize skills development and hands-on exercises as well as provide an opportunity for participants to discuss related topics with industry leaders.

CONS 149 CLASS A & B LICENSE TRAINING (formerly ENVR 149, AGRI 149)- 1 Unit (P/NP Only)
Prerequisite: A grade of C or higher in CONS 46
Note: Students will not be allowed to operate road equipment without a proper license and driving record. Students must be enrolled in the college's random drug testing program. Students must produce a negative test result in accordance with Shasta College Student Substance Abuse Testing Policy at a student cost to be paid to the designated testing facility.
Class Hours: 9 lecture/27 lab total
This is an advanced level course designed to give the participants practical skills and knowledge in the operation and safety of on-road heavy equipment. The course will emphasize safe operation skills, pre-operation inspections and Department of Motor Vehicles Class A and B license training as it pertains to operating on-road heavy equipment.

CONS 150 INTRODUCTION TO RESIDENTIAL CONSTRUCTION - 3 Units
Class Hours: 54 lecture total
This course is recommended for entry-level students in the construction trades. Instruction will include tool safety, estimating costs, foundations, framing, plumbing, electrical, mechanical, and finish carpentry work. The student will gain a basic knowledge of the building trades.

CONS 151 CARPENTRY PRACTICES I (formerly CONS 151A) - 6 Units
Class Hours: 54 lecture/162 lab total
The purpose of this course is to train competent persons for the construction field. Related information including interpretation of layout, estimation of construction costs and choice quantities of materials will be emphasized. Basic skill will be developed with each phase of the job: foundation, framing, exterior and interior trim, and cabinet work. The course will permit the student to fulfill the greater portion of apprenticeship requirement while enjoying the atmosphere of higher education. Basic information of building codes will be covered.

CONS 152 CARPENTRY PRACTICES II (formerly CONS 151B) - 6 Units
Class Hours: 54 lecture/162 lab total
The purpose of this course is to train students to become competent in the construction field. Related information including interpretation of layout, estimation of construction costs and choice quantities of materials will be emphasized. Basic skills will be developed with each phase of the job: foundation, framing, exterior and interior trim, and cabinet work. The course will permit the student to fulfill the greater portion of apprenticeship requirement while enjoying the atmosphere of higher education. Basic information of building codes will be covered.

CONS 154 RESIDENTIAL PLUMBING - 3 Units
Class Hours: 36 lecture/54 lab total
This course is designed to give the student entry-level job skills in the residential plumbing trade.

CONS 155 RESIDENTIAL ELECTRICAL - 3 Units
Class Hours: 36 lecture/54 lab total
This course in residential electrical is designed to give the student a basic understanding of how to run a variety of circuits, grounding systems, and familiarize them to the National Electrical Code.

CONS 168 GENERAL SHOP/WOODWORKING - 2 Units (P/NP Option)
Class Hours: 18 lecture/54 lab total
A skill development course in furniture construction. Course activities will stress power tool setup and use. Related instruction will include wood selection and ordering, furniture plan reading and development, joints, adhesives, abrasives, finishes, furniture hardware, and fasteners. Students will select projects that will demonstrate skills. Note: Since skills are enhanced by supervised practice and repetition, this course may be repeated three times for a total of four enrollments.

CONS 178 BUILDING CODES AND STANDARDS - 3 Units
Class Hours: 54 lecture total
This course is designed to provide the craftsperson, building, designer, and inspector with knowledge and insight regarding building regulations and requirements for minimum construction guidelines and specifications. It covers the use of the latest Uniform Building, Plumbing, Mechanical and Electric Codes and assists in using them to the builder's advantage. The class also provides information on sources of assistance and publications to meet the needs for dwelling construction industry.

CONS 197 SPECIAL TOPICS IN CONSTRUCTION TECHNOLOGY - .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge and historical issues in the field of Construction Technology. A different topic will be addressed each time the class is taught. Recommended for Construction Technology majors; open to anyone with an interest in this topic. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

CONS 198 SPECIAL TOPICS IN CONSTRUCTION TECHNOLOGY – LAB SKILLS - .5-2 Units (P/NP Option)
Class Hours: 27-108 lab total
This course is designed to give students an opportunity to explore a variety of topics in a lab setting dealing with changing knowledge in Construction Technology. A different topic will be addressed each time the class is taught. Recommended for Construction Technology and Equipment Operations majors; open to anyone with an interested in these topics. NOTE: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

CULINARY ARTS (CULA)

The following courses will require extensive reading and math exercises.

CULA 45 BASIC FOOD PRODUCTION – 5 Units
Corequisite: Students must be concurrently enrolled in, or have completed CULA 50 with a grade of C or higher
Class Hours: 18 lecture/216 lab total
This course involves preparing and cooking of foods, understanding kitchen operations and the proper use of safety and sanitation procedures in the kitchen. This will prepare the students for the Advanced Food Preparation class and will prepare skilled food personnel in kitchen procedures.

CULA 46 ADVANCED FOODS – 5 Units
Prerequisite: A grade of C or higher in CULA 45 and a grade of C or higher in CULA 50
Class Hours: 18 lecture/216 lab total
This course examines advanced principles of food preparation of foods served in restaurants. Emphasis given to the planning and preparation of food products relating to restaurants, hotels, and specialty food operations.

CULA 48 GOURMET FOOD PREPARATION – 3 Units
Prerequisite: A grade of C or higher in CULA 46 and a grade of C or higher in CULA 50
Class Hours: 27 lecture/81 lab total
This course is designed to teach advanced food preparation techniques and methods. Students learn the science of scratch cookery through small batch assignments. Areas of focus include gourmet items, buffet specialties, hors d'oeuvres, and canapés, while practicing presentation and garnishing. Small scale preparation is produced in a time-restricted quality-minded setting. This course is for students pursuing a career in culinary arts/culinary management.

CULA 49 MENU PLANNING AND COST ANALYSIS – 2 Units
Class Hours: 27 lecture/27 lab total
This course is designed to summarize the basic principles of menu planning and layout for various food service operations. Topics included are pricing, nutrition, and types of menus.

CULA 50 SANITATION & SAFETY (formerly CULA 150) - 2 Units
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 36 lecture (when offered in the Distance Education format, hours will total 108)
The course examines the basic principles of hygiene and sanitation and the application of these principles to food service operations. It also includes safety elements in food service planning; description of maintenance and operation of the appropriate food service equipment, and OSHA regulations. Emphasis will be placed on the supervisors' responsibilities in maintaining high sanitation and safety standards. This course may be offered in a distance learning format.

CULA 55 PURCHASING (formerly CULA 155) - 2 Units
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 36 lecture total (when offered in the Distance Education format, hour will total 108)
This course will cover the function of purchasing from the viewpoint of management. It discuses channels of distribution, buying techniques, specification writing and other principles needed to perform this critical activity. This course may be offered in a distance learning format.

CULA 59 CATERING AND EVENT PLANNING – 3 Units
Prerequisite: A grade of C or higher in CULA 45 and a grade of C or higher in CULA 50
Advisory: A grade of C or higher in ENGL 280 or English Placement Level 5 or higher; concurrent enrollment in CULA 94
Class Hours: 36 lecture/54 lab total
This course provides practical experiences designed to supplement the basic curriculum and includes special cooperative educational opportunities set up with the College and approved Chefs. Experiences include special and short order food preparation and service, buffet service, catering, dining room management and service and receiving and storeroom procedures. Large scale and small quantity preparation is produced in a time restricted quality minded setting. This course is for students pursuing a career in culinary arts/culinary management.

CULA 60 BEVERAGE MANAGEMENT – 2 Units
Class Hours: 36 lecture total
Identification, production, purchasing, and service of spirits, wine and beer products. Marketing, menu development, and cost controls of a beverage operation. Special emphasis on staffing, training, and legal regulations for beverage sales.

CULA 65 DINING ROOM SERVICE – 3 Units
Class Hours: 27 lecture/81 lab
In this course, students will learn in a live environment, the skills and techniques of the "front of the house" service staff. Throughout this course, students will rotate through basic dining room positions, learning and practicing their skills in front of dining room guests, in our public dining facility. Emphasis will be on the basic serving techniques and on customer satisfaction.

CULA 66 WINE WITH FOOD – 2 Units
Limitation on Enrollment: Students must be 21 years of age or older to take this course.
Class Hours: 36 lecture total
This course is designed to teach students the applied approach to match wine and food from different parts of the world using flavors, textures, and components present in food and wine as complementing strategies. Emphasis on menu planning, preparation of foods, cooking methods, and tasting wines with food. Concepts can be applied to home preparation of food with wine, restaurant food production with wine, and dining out.

CULA 71 BEGINNING BEERMAKING - 1 Unit (P/NP Only)
Limitation on Enrollment: Students must be a minimum of 21 years old to take this course
Class Hours: 18 lecture total
This course covers beer styles, ingredients, brewing equipment, brewing techniques, sanitation, fermentation, clarification, and bottling. It also provides a sensory evaluation of representative beers. Students will make one or two batches of beer during the class.

CULA 73 INTRODUCTION TO WINES - 2 Units (P/NP Option)
Limitation on Enrollment: Students must be 21 years of age or older to take this course
Class Hours: 36 lecture total
Characteristics of wines from the major varietals emphasized. Identification of wines from the wine districts of California, France, Germany, and Italy. The concept of food and wine pairing will also be evaluated.

CULA 74 BASIC WINEMAKING - 2 Units (P/NP Option)
Limitation on Enrollment: Students must be 21 years of age or older to take this course.
Class Hours: 27 lecture/27 lab
This is a course in the basic science and technology of winemaking. It is intended for the entrepreneur exploring business opportunities in the grape wine industry, and/or the prospective small winery employee, as well as the home winemaker, interested in career or skills development. Hands-on winemaking from crush through fermentation will be covered.

CULA 75 PASTRY – 2 Units
Prerequisite: A grade of C or higher in CULA 50 and a grade of C or higher in CULA 172
Class Hours: 18 lecture/54 lab total
This course covers fundamental baking skills for students who intend to specialize in baking and pastry making for commercial production. Production of yeast and quick breads, cakes, cookies, pies, and pastries, as well as decorating and icings are undertaken, with emphasis placed on more sophisticated items and gourmet specialties including cakes and pastries for weddings, birthdays and special occasions. Gourmet baked items and pastries are produced in a time-restricted quality-minded setting. This course is for students pursuing a career in culinary arts/culinary management.

CULA 76 INTERMEDIATE WINEMAKING - 2 Units (P/NP Option)
Prerequisite: A grade of C or higher in CULA 74
Limitation on Enrollment: Students must be 21 years of age or older to take this course.
Class Hours: 27 lecture/27 lab
This is an intermediate course in the science and technology of winemaking. It is intended for the entrepreneur exploring business opportunities in the grape wine industry, and/or the prospective small winery employee, as well as the home winemaker, interested in career or skills development. This course encompasses winemaking in the realms of wine analysis, chemistry, and treatments.

CULA 78 SENSORY EVALUATION OF WINE - 2 Units (P/NP Option)
Advisory: A grade of C or higher in CULA 73 or CULA 66
Limitation on Enrollment: Students must be 21 years of age or older to take this course.
Class Hours: 36 lecture
This course will provide the student a better understanding of wine by learning about the senses and how to use them. Students will learn how to describe wines precisely, practice tasting varietals, learn how to judge good and bad wines, and how a wine's sensory characteristics are created in the vineyard and the winery.

CULA 80 WINE SALES AND MARKETING - 3 Units (P/NP Option)
Class Hours: 54 lecture
This course explains the principles and strategies of wine marketing and sales. The information covered will help winery personnel or distributors understand this unique market. Students will develop a successful marketing plan.

CULA 82 WINES OF CALIFORNIA - 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in CULA 73
Limitation on Enrollment: Students must be 21 years of age or older to take this course
Class Hours: 54 lecture
This class focuses on how California has become a focal wine producing area in the world in less than 25 years. The course traces the dramatic progress of the California winemaking industry--the who, how, why, what, and where. Insight is provided into the ways in which West Coast vintners are working to create extraordinary wines, and to explain the myriad of developments in character, quality, and technology that have taken place. The course and text look at how new approaches to wine making have contributed to California's current high status in the world order of wine. Sensory evaluation of applicable wines is part of the course.

CULA 84 CULTURAL APPRECIATION OF WINE - 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in CULA 73
Limitation on Enrollment: Students must be 21 years of age or older to take this course
Class Hours: 54 lecture
This class is a survey of wine and its role in culture, art, religion, and society throughout history to modern day. Sensory evaluation of applicable wines is part of the course.

CULA 86 WINES OF FRANCE AND ITALY - 2 Units (P/NP Option)
Prerequisite: A grade of C or higher in CULA 73
Limitation on Enrollment: Students must be 21 years of age or older to take this course
Class Hours: 36 lecture
This course covers the predominant French and Italian wine-producing regions, including history, viticulture practices and winemaking styles. Sensory evaluation of representative wines is also covered.

CULA 88 WINES OF THE NORTH STATE - 1 Unit (P/NP Option)
Prerequisite: A grade of C or higher in CULA 73
Limitation on Enrollment: Students must be 21 years of age or older to take this course
Class Hours: 18 lecture
A short course, including history, viticulture practices and winemaking styles of the North State wines of California, specifically Shasta, Tehama, and Trinity Counties. Sensory evaluation of representative wines is also covered.

CULA 94 CULINARY ARTS WORKSITE LEARNING – 1-4 Units
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

CULA 97 SPECIAL TOPICS IN CULINARY ARTS - .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in culinary arts. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

CULA 98 SPECIAL LAB TOPICS IN CULINARY ARTS – .5-2 Units (P/NP Option)
Class Hours: 27-108 lab total
This course is designed to give students an opportunity to explore a variety of activities dealing with changing topics/knowledge in culinary arts. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

CULA 159 STOCKS, SOUPS, SAUCES & BASIC CULINARY PREPARATION - 2 Units
Class Hours: 18 lecture/54 lab total
Demonstration and practical application in the preparation of various stocks, soups, and sauces involving different methods of cooking meat, fish, seafood, poultry and vegetables. The uses of culinary terms, equipment and hand tools will be applied to preparation of stocks, soups, and sauces.

CULA 161 THE ART OF GARDE MANGER (PREPARATION & PRESENTATION OF GARNISHED FOODS)-2 Units
Class Hours: 18 lecture/54 lab total
This course is about the artwork of the food service industry that blends aesthetic and practical aspects of food presentation. The course stresses skills in producing a variety of cold food products. The student will also prepare items appropriate for buffet presentations which will include decorative pieces.

CULA 167 CAFETERIA BASIC SKILLS: BASIC FOODS – 3 Units
Class Hours: 45 lecture/27 lab total
An overview of basic skills involved in preparing and serving nutritious, acceptable foods in schools, child care centers, and family day care programs. Subject areas include food preparation principles and standardized recipes including qualities of standard food products; components of the reimbursable meal pattern; "United States Dietary Guidelines: and the four food groups; safety and sanitation standards and procedures; portion control; basics of work improvements and record keeping; and methods for developing positive staff morale.

CULA 170 MENU DESIGN - 3 Units
Class Hours: 54 lecture total
An overview of menu planning for child nutrition programs including meal planning options, nutrition standards, menu writing, student preferences, marketing and evaluation. Procedures for developing standardized products, budgetary controls, and evaluating procurement and delivery systems meeting federal, state, and local standards.

CULA 171 INTRODUCTION TO CHILD NUTRITION PROGRAMS FOR MANAGERS - 3 Units
Class Hours: 54 lecture total
An overview of challenges and responsibilities in child nutrition programs, school and food service organization; nutrition issues and the evaluation of nutrition information; meal planning and food acceptability; issues in food procurement; nutrient retention in food production; requirements for sanitation and safety; records and accountability; cost control procedures; personnel job satisfaction and professionalism; training procedures; marketing, public relations, and nutrition education.

CULA 172 BAKING - 2 Units
Class Hours: 18 lecture/54 lab total
Students in this course will learn and practice dessert and bread production from formulas used in quantity food service. Cost and nutritional content will be emphasized.

DANCE (DAN)

DAN 10 DANCE COMBINATIONS - .5-1 Unit (P/NP Option)
Class Hours: 27 or 54 total activity
Introduction to the fundamental movement, technique, terminology, choreography, and philosophy of jazz, ballet, and modern dance. NOTE: This course may be repeated once for a total of two enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

DAN 15 CHOREOGRAPHY AND DANCE ANALYSIS - 1 Unit (P/NP Option)
Advisory: Previous dance experience or concurrent enrollment in dance classes
Class Hours: 54 total activity
Introduction to the fundamentals of choreography for concert dance. This course will explore the elements of space and its use. Students portray a topic of interest through a dance discipline, experimenting with movement style and choice of music accompaniment. The course will include analysis and critique of the student's own work, the work of other students and of professional and historic choreography. Students will have the opportunity to audition completed works for Shasta College Dance Concerts. NOTE: This course may be repeated once for a total of two enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

DAN 20 MODERN DANCE I (formerly PE 40 and HPE 36AB) - .5-1 Unit (P/NP Option)
Class Hours: 27 or 54 total activity
Fundamental movement, techniques, terminology, basic rhythm and simple choreography of modern dance. Note: This class may be repeated one time for a total of two enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

DAN 21 MODERN DANCE 2 (formerly PE 43 and HPE 47AD and HPE 36CD) - .5-1 Unit (P/NP Option)
Class Hours: 27 or 54 total activity
A class for modern dance students interested in more technical and sophisticated performing and choreography. Note: This course may be repeated one time for a total of two enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

DAN 30 BALLET 1 (formerly PE 41 and HPE 37AB) – .5-1 Unit (P/NP Option)
Class Hours: 27 or 54 total activity
An introduction to the art form of classical concert dance. Beginning technique, emphasis on body placement, introduction to classical ballet terminology used worldwide, recognition of the musical rhythms that accompany specific historic steps, beginning choreography of most used ballet step combinations and patterns. Note: This class may be repeated one time for a total of two enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

DAN 31 BALLET 2 (formerly PE 44 and HPE 45AD and HPE 37CD) - .5-1 Unit (P/NP Option)
Class Hours: 27 or 54 total activity
A class for ballet students interested in developing a more technical and sophisticated aspect of classical dance. Students will be instructed in the purpose of the classical syllabus exercises and be able to identify their purpose. Students will gain knowledge of the different schools of thought, the terminology of classical dance. There are performance and choreographic opportunities. Note: This course may be repeated one time for a total of two enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

DAN 40 JAZZ DANCE 1 (formerly PE 42 and HPE 72AB) - .5-1 Unit (P/NP Option)
Class Hours: 27 or 54 total activity
Fundamental movement, techniques, terminology, basic rhythm, and simple choreography of jazz dance. Note: This class may be repeated one time for a total of two enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

DAN 41 JAZZ DANCE 2 (formerly PE 45 and HPE 72CD and HPE 46AD) - .5-1 Unit (P/NP Option)
Class Hours: 27 or 54 total activity
A class for jazz dance students interested in more technical and sophisticated performing and choreography. Note: This course may be repeated one time for a total of two enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

DAN 50 TAP DANCE 1 (formerly PE 46) - .5-1 Unit (P/NP Option)
Class Hours: 27 or 54 total activity
This class will introduce beginning sounds of tap. It will build technique, both physical and mental of this classic art form. Note: Course may be repeated three times for a total of four enrollments since skill and proficiencies are enhanced by repetition and practice.

DENTAL (DNTL)

DNTL 10 ORAL BIOLOGY - 3 Units
Limitation on Enrollment: Enrollment in the Dental Hygiene Program
Note: The student must present enrollment letter to the instructor on the first day of school
Class Hours: 54 lecture/18 lab total
The study of embryology and histology of oral structural formation, clinical recognition of normal oral structures, the physiological and structural functions of teeth and supporting tissues, and oral anatomy relative to proper dental hygiene procedures.

DNTL 11 ORAL RADIOLOGY - 3 Units
Limitation on Enrollment: Enrollment in the Dental Hygiene Program
Note: The student must present enrollment letter to the instructor on the first day of school
Class Hours: 36 lecture/54 lab total
This course focuses on radiation physics, biology, protection, quality, dental techniques, film processing and mounting, interpretation of errors, recognition of anatomical landmarks, and evidence of pathologies. Students practice skills on radiographic models and student patients in a clinical setting; all skills are taught to clinical competence. This course builds on basic and dental sciences and prepares for clinical dental hygiene practice.

DNTL 12 HEAD AND NECK ANATOMY - 2 Units
Limitation on Enrollment: Enrollment in the Dental Hygiene Program
Note: The student must present enrollment letter to the instructor on the first day of school
Class Hours: 27 lecture/27 lab total
This course studies the anatomical structures of the head and neck regions and relates these structures to the clinical practice of Dental Hygiene.

DNTL 13 DENTAL HEALTH EDUCATION/SEMINAR - 2 Units
Limitation on Enrollment: Enrollment in the Dental Hygiene Program
Note: The student must present enrollment letter to the instructor on the first day of school
Class Hours: 36 lecture total
Principles and practices of prevention and control of dental disease with emphasis on nutrition, and plaque control, motivation and chairside patient education.

DNTL 14 INTRODUCTION TO CLINIC - 4 Units
Limitation on Enrollment: Enrollment in the Dental Hygiene Program
Note: The student must present enrollment letter to the instructor on the first day of school
Class Hours: 36 lecture/108 lab total
Introduction to all clinical procedures and skills needed for Dental Hygiene.

DNTL 20 LOCAL ANESTHESIA AND NITROUS OXIDE – 2 Units
Prerequisite: A grade of C or higher in each of the following courses: DNTL 10, DNTL 11, DNTL 12, DNTL 13 and DNTL 14.
Class Hours: 18 lecture/54 lab total
Covers the pharmacology and physiology of local anesthetic agents and effective technique in delivery of these agents to the oral cavity. Focuses on the anatomy of the nerves, physiology of nerve conduction, and how anesthesia works. Discusses the prevention and management of associated emergencies. Skills are practiced in a clinical setting on student patients: all skills are taught to clinical competence.

DNTL 21 GENERAL AND ORAL PATHOLOGY - 4 Units
Prerequisite: A grade of C or higher in each of the following courses: DNTL 10, DNTL 11, DNTL 12, DNTL 13 and DNTL 14.
Class Hours: 72 lecture total
Pathological processes of inflammation, immunology defense, degeneration, neoplasm, developmental disorders, healing and repair. Recognition of abnormalities in the human body with a special emphasis on normal and abnormal conditions in the oral cavity.

DNTL 23 PATIENT MANAGEMENT AND GERIATRICS – 2 Units
Prerequisite: A grade of C or higher in each of the following courses: DNTL 10, DNTL 11, DNTL 12, DNTL 13 and DNTL 14.
Class Hours: 36 lecture total
This course teaches characteristics of individual patients, motivation, and management of same and interpersonal communication. Treatment of the compromised patient and myofunctional therapy is presented.

DNTL 24 CLINICAL PRACTICE I - 4 Units
Prerequisite: A grade of C or higher in each of the following courses: DNTL 10, DNTL 11, DNTL 12, DNTL 13 and DNTL 14.
Class Hours: 18 lecture/162 lab total
Provides beginning clinical experience in the treatment of adult and child patients. Various clinical procedures utilizing scaling and polishing techniques, oral inspection, cancer screening, dental and periodontal charting, principles of ultrasonic scaling, plaque control instruction and fluoride application will be taught.

DNTL 25 CLINIC I SEMINAR - 2 Units
Prerequisite: A grade of C or higher in each of the following courses: DNTL 10, DNTL 11, DNTL 12, DNTL 13 and DNTL 14.
Class Hours: 36 lecture total
Provides expanded learning opportunities related to clinical dental hygiene care through lecture, demonstrations and guest speakers.

DNTL 26 NUTRITION IN DENTISTRY - 1 Unit
Prerequisite: A grade of C or higher in each of the following courses: DNTL 10, DNTL 11, DNTL 12, DNTL 13, and DNTL 14
Class Hours: 18 lecture total
Provides the basic principles of nutrition and their relationship to dental health. To teach students to perform dietary surveys on clinic patients and to plan nutritional dietary programs.

DNTL 27 SUMMER CLINIC 27 - 1 Unit (P/NP Only)
Prerequisite: Completion of DNTL 11, DNTL 12, DNTL 14, DNTL 20, DNTL 23, DNTL 24
Class Hours: 54 lab total
This course will provide students with the opportunity to become more proficient in the clinical skills learned and practiced during previous clinical courses including instrumentation techniques, patient assessment, and administration of local anesthesia.

DNTL 30 PERIODONTOLOGY I - 3 Units
Prerequisite: A grade of C or higher in each of the following courses: DNTL 20, DNTL 21, DNTL 23, DNTL 24, DNTL 25 and DNTL 26
Class Hours: 54 lecture total
A course in Periodontology teaches the scientific study of the structures and function of the periodontium in both health and disease, the etiology and principles of periodontal diseases, examination procedures, treatment and preventative measures.

DNTL 31 PHARMACOLOGY - 2 Units
Prerequisite: A grade of C or higher in each of the following courses: DNTL 20, DNTL 21, DNTL 23, DNTL 24, DNTL 25 and DNTL 26
Class Hours: 36 lecture total
Focuses on pharmacology as it affects the clinical practice of dentistry. Emphasizes drugs commonly used in dentistry, for treatment of common systemic and oral diseases, and for emergency treatment: effects, administration, and toxicology. Builds on basic and dental sciences and prepares for clinical dental hygiene practice.

DNTL 32 DENTAL MATERIALS - 2 Units
Prerequisite: A grade of C or higher in each of the following courses: DNTL 20, DNTL 21, DNTL 23, DNTL 24, DNTL 25 and DNTL 26
Class Hours: 36 lecture/18 lab total
Presents the history, composition, chemical and physical properties and use of materials commonly utilized in the dental laboratory and dental operatory. Builds on dental sciences. Provides laboratory experience in performing common dental laboratory procedures and prepares for the clinical practice of extended functions. All skills are taught to competence.

DNTL 33 ADVANCED CLINICAL TOPICS - 2 Units
Prerequisite: A grade of C or higher in each of the following courses: DNTL 20, DNTL 21, DNTL 23, DNTL 24, DNTL 25 and DNTL 26
Class Hours: 36 lecture total
This course is designed to present advanced topics and current technology used in the dental and dental hygiene field such as soft tissue curettage, root morphology and periodontal instrumentation, oral brush biopsy, non-surgical periodontal dressings, care for dental implants, oral maxillofacial surgery and orthodontics.

DNTL 34 CLINICAL PRACTICE II - 4 Units
Prerequisite: A grade of C or higher in each of the following courses: DNTL 20, DNTL 21, DNTL 23, DNTL 24, DNTL 25 and DNTL 26
Class Hours: 216 lab total
Advanced skills of dental hygiene practice, including assessment and treatment are practiced on patients in a clinical setting, with emphasis on planning and comprehensive treatment; all skills are taught to clinical competence. Expands on the procedures and techniques introduced in previous preclinical and clinical courses. Builds on basic and dental sciences and prepares for clinical dental hygiene practice.

DNTL 35 CLINICAL II SEMINAR - 1 Unit
Prerequisite: A grade of C or higher in each of the following courses: DNTL 20, DNTL 21, DNTL 23, DNTL 24, DNTL 25 and DNTL 26
Class Hours: 18 lecture total
Provides an expanded learning experience through discussion of dental hygiene care for the culturally diverse, tobacco cessation counseling, and seminar study of clinical cases. Builds on basic and dental sciences and prepares for clinical dental hygiene practice.

DNTL 40 PERIODONTICS II - 1 Unit
Prerequisite: A grade of C or higher in each of the following courses: DNTL 30, DNTL 31, DNTL 32, DNTL 33, DNTL 34 and DNTL 35
Class Hours: 18 lecture total
A course to enhance assessment skill applicable in the treatment of patients with advanced periodontal disease. To teach the dental hygienist ethical and clinical responsibility in periodontal disorders and to teach the relationship of the specialty practice of periodontics within the broad scope of dentistry and the legal ramifications thereof.

DNTL 41 PRACTICE AND FINANCIAL MANAGEMENT - 1 Unit
Prerequisite: A grade of C or higher in each of the following courses: DNTL 30, DNTL 31, DNTL 32, DNTL 33, DNTL 34, and DNTL 35
Class Hours: 18 lecture total
Office practice management; ethical and legal aspects of dentistry and dental hygiene, and business matters relating to dental hygiene practice.

DNTL 42 CLINIC III SEMINAR - 2 Units
Prerequisite: A grade of C or higher in each of the following courses: DNTL 30, DNTL 31, DNTL 32, DNTL 33, DNTL 34, and DNTL 35
Class Hours: 18 lecture/54 lab total
Provides an expanded clinical experience exposure through independent study or additional clinical experience.

DNTL 43 CLINICAL PRACTICE III - 4 Units
Prerequisite: A grade of C or higher in each of the following courses: DNTL 30, DNTL 31, DNTL 32, DNTL 33, DNTL 34 and DNTL 35
Class Hours: 216 lab total
Provides students with the opportunity to become more proficient in the clinical skills learned and practiced in previous clinical courses and to prepare them for success on their state and national board examinations.

DNTL 44 COMMUNITY ORAL HEALTH - 3 Units
Prerequisite: A grade of C or higher in each of the following courses: DNTL 30, DNTL 31, DNTL 32, DNTL 33, DNTL 34 and DNTL 35
Class Hours: 54 lecture total
Introduces students to the principles and practices of dental public health. The emphasis is placed on the role of the dental hygienist as an innovator of, and an educator in community health programs. Public health issues will be introduced and completely discussed.

DNTL 45 ETHICS AND JURISPRUDENCE - 2 Units
Prerequisite: A grade of C or higher in each of the following courses: DNTL 30, DNTL 31, DNTL 32, DNTL 33, DNTL 34 and DNTL 35
Class Hours: 36 lecture total
The study of the fundamental factors necessary to be employed and practice within the ethical and legal framework of the State Dental Practice Act and the Code of Ethics of the American Dental Association.

DNTL 54 SUMMER CLINIC 54 - 1 Unit (P/NP Only)
Prerequisite: A grade of C or higher in each of the following courses: DNTL 14, DNTL 20, DNTL 24, DNTL 30, DNTL 34, DNTL 43
Class Hours: 54 lab total
This course will provide students with the opportunity to become more proficient in the clinical skills learned and practiced during previous clinical courses and to prepare for success on their state clinical licensing examinations. This course is offered on a pass/no pass basis only.

DIESEL TECHNOLOGY (DIES)

NOTE: STUDENTS MUST PROVIDE THEIR OWN HAND TOOLS FOR TECHNICAL CLASSES IN THE DIESEL TECHNOLOGY AND AUTOMOTIVE TECHNOLOGY MAJORS IN ORDER TO COMPLETE REQUIRED COURSE OBJECTIVES.

DIES 30 HYDRAULIC TROUBLESHOOTING - 1 Unit
Prerequisite: A grade of C or higher in DIES 48
Class Hours: 9 lecture/27 lab total
This class is intended to demonstrate safe and effective troubleshooting procedures as required for industrial and mobile hydraulic equipment.

DIES 48 HYDRAULICS - 3.5 Units (P/NP Option)
Class Hours: 54 lecture/27 lab total
A study of the theory, application, and component parts of hydraulic systems. This course will emphasize fundamentals in dismantling, inspection, and troubleshooting hydraulic components and complete systems. Closed-loop application, inspection and trouble-shooting will be studied. This course is required for all Diesel Technology, Welding Technology and Equipment Operations and Maintenance majors.

DIES 49 ADVANCED HYDRAULICS (formerly AGRI 49) - 3 Units (P/NP Option) (S/I)
Prerequisite: A grade of C or higher in DIES 48
Class Hours: 36 lecture/72 lab total
This course will emphasize the application of cylinders and motor used to control fluid power systems. Hydraulic-pneumatic circuitry, maintenance, repair, and closed loop drives will be covered. Recommended for Equipment Operations and Maintenance, production, agriculture, and diesel majors.

DIES 94 DIESEL TECHNOLOGY WORKSITE LEARNING – 1-4 Units
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

DIES 158 DIESEL TUNE-UP AND FUEL SYSTEMS - 4 Units
Class Hours: 36 lecture/108 lab total
This course will cover diesel fuel systems as related to testing, calibrating and diagnostic procedures. Mechanical and electronic diesel engine fuel controls will be covered.

DIES 160 DIESEL ENGINE ELECTRONIC CONTROL – 4 Units
Class Hours: 54 lecture/54 lab total
This course will cover electronic diesel engine control systems as related to testing, calibrating and diagnostic procedures. The use of industry software generated computer programs will be utilized.

DIES 161 DIESEL TECHNOLOGY FIELD TRAINING – 2 Units
Prerequisite: A grade of C or higher in DIES 162
Corequisite: Students must be concurrently enrolled in four units of DIES 94
Limitation on Enrollment: Student must be 18 years of age, provide his/her own transportation, DMV readout, and must be prepared to take a physical including drug test at the repair facility's request.
Class Hours: 36 lecture total (when offered in the Distance Education format, hours will total 108)
This course is designed to prepare the student for a career in the diesel technology field. Classroom instruction will include work-site expectations, interview techniques, and assessment of work performance. The student will be placed with local industry at various diesel repair facilities to expose them to actual industry standards. This course may be offered in a distance learning format.

DIES 162 HEAVY DUTY POWER TRAIN - 4 Units
Class Hours: 54 lecture/54 lab total
This course covers shop practices in service, repair, adjustment and preventive maintenance of heavy duty drive trains.

DIES 164 DIESEL PERFORMANCE ANALYSIS - 4 Units
Class Hours: 54 lecture/54 lab total
Diesel fuel systems, composition of fuels, combustion chamber design, manifolds, fuel and air filters, fuel transfer pumps, fuel-injection pumps and injectors are taught in this class. Mechanical and electronic fuel controls will be analyzed. You will learn testing, calibrating and diagnostic procedures, using modern test equipment. Performance analysis of diesel engines as related to the California Air Resources Board Heavy Duty Vehicle Smoke and Tampering Inspection Program as mandated by Senate Bill 1997 of 1988 will be covered.

DIES 165 AIR BRAKE SYSTEMS AND TROUBLESHOOTING - 2 Units
Class Hours: 36 lecture total
This course will cover the operation and troubleshooting of air brakes pertaining to heavy duty equipment.

DIES 166 DIESEL ENGINES - 6 Units
Prerequisite: A grade of C or higher in DIES 164
Class Hours: 54 lecture/162 lab total
This course is an in-depth study of various diesel engines, theory of design, operation and application. This lab will provide training in the disassembly and inspection of diesel engines, practical assembly procedures and technical analysis of engine services.

DIES 170 HEAVY DUTY BRAKING SYSTEMS - 4 Units
Class Hours: 54 lecture/54 lab total
This course will cover the basic design and repair of foundation brakes and air systems pertaining to heavy duty vehicles.

DIES 197 SPECIAL TOPICS IN DIESEL TECHNOLOGY - .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in the field of Diesel Technology. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for Diesel Technology majors; open to anyone with an interest in the topic. Note: This course may be repeated three times for a total of four enrollments.

DIETARY SERVICES SUPERVISOR (DSS)

DSS 10 FOOD PRODUCTION MANAGEMENT - 3 Units (P/NP Option)
Advisory: A grade of C or higher in CULA 50
Class Hours: 54 lecture (when offered in the Distance Education format, hours will total 162)
This course will cover effective management skills in food production, food purchasing policies and procedures, and the role of the Dietary Service Supervisor. Basic institutional cooking skills will be presented including using weights and measures, choosing ingredients and food preparation methods. Students will be involved in menu planning and costing, recipe standardization and recipe costing. Instruction on the selection, safety and usage of institutional equipment will be provided. This course may be offered in a distance learning format.

DSS 63 DIETARY SERVICE SUPERVISOR OPERATIONS AND MANAGEMENT - 3 Units (P/NP Option)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course includes methods of supervision and leadership which are applicable to the food service industry. Methods and techniques of recruitment, selection, training and evaluation of personnel are covered. Record maintenance, enforcement of safety and sanitary standards; supervision of food service employees are stressed. This course may be offered in a distance learning format.

DSS 94 DIETARY SERVICE SUPERVISOR WORKSITE LEARNING – 1-4 Units
Prerequisite: A grade of C or higher in each of the following courses: DSS 10, DSS 63, and FSS 27
Limitation on Enrollment: During regular semesters, students must enroll in a minimum of seven units including the Worksite Learning course. During summer sessions, students must enroll in one other class in addition to the Worksite Learning course.
Class Hours: 75 hours paid or 60 hours non-paid per unit
Employment on approved jobs in the student's major. All WSL classes supervised by a faculty member to ensure that the work experience is of educational value. This course stresses good work habits and meeting of SCANS competencies through actual on the job performance. This course may be repeated three times for maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice. Dietary Service Supervisor majors must have a minimum of 3 units for both fall and spring semesters for each year.

EARLY CHILDHOOD EDUCATION (ECE)

ECE 1 HUMAN DEVELOPMENT - 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course involves a study of development and behavior throughout the human life span. Classic and up-to-date research on the physical, cognitive, and psychosocial domains will be presented. Theories will be integrated with practical application concepts throughout the course, underscoring the importance of life-long learning and adaptation. This course may be offered in a distance learning format.

ECE 2 CHILD, FAMILY, COMMUNITY - 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
Child, Family, Community introduces the student to the interacting influences of family life and community experiences that affect the developing child. The course focuses on the primary social relationships and social settings within the context of dissimilar family patterns. The study encourages understanding and practical utilization of community systems and resources that promote quality outcomes for both preschool and school age children, families, schools, and communities. This course may be offered in a distance learning format.

ECE 3 EARLY CHILDHOOD PROGRAM ADMINISTRATION - 3 Units
Prerequisite: A grade of C or higher in ECE 7
Note: This course meets the Title 22 requirements for Teacher/Director qualifications.
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course identifies and assesses the principles and practices of managing early childhood programs. Course content will focus on overall administrative procedures for various programs providing care and learning for children ages zero to eight. The topics include: regulatory agencies, licensing and compliance with local and state requirements, funding and budgeting, staff selection and scheduling, and enrollment and operational policies and reports. This course may be offered in a distance learning format.

ECE 4 INTRODUCTION TO EARLY CHILDHOOD EDUCATION - 1 Unit
Class Hours: 18 lecture total (when offered in the Distance Education format, hours will total 54)
Introduction to Early Childhood Education provides the student with a basic orientation to careers related to working with young children. The course will offer an overview of child care settings, characteristics of effective child care providers and teachers, ethical issues and standards of this field, and training and employment opportunities. This course may be offered in a distance learning format.

ECE 6 EXPLORING FAMILY CHILDCARE (formerly ECE 153) - 3 Units
Class Hours: 54 lecture total
This course provides an introduction to family childcare. Topics presented include an overview of regulations, family childcare management, application of child growth and development principles, importance of culturally diverse and age appropriate activities, and safe and healthful setting in a family childcare.

ECE 7 EARLY CHILDHOOD OBSERVATION AND ASSESSMENT - 3 Units
Prerequisite: A grade of C or higher in ECE 1
Note: Observation hours for this course will be obtained through the course lab hours at the Shasta College Early Childhood Education Center or a designated Early Childhood Mentor Site.
Class Hours: 36 lecture/54 lab total (The lab portion of this course may be offered in a distance learning format to accommodate lab hours completed at a designated Early Childhood Mentor Site. Lecture hours will be regularly scheduled hours.)
This course provides the student with opportunities for further study of development and behavior of young children by developing skills in observation and assessment

ECE 8 TEACHING PRACTICES FOR YOUNG CHILDREN (formerly ECE 8A) - 5 Units
Prerequisite: A grade of C or higher in ECE 7
Note: Supervised field site experience for the California Child Development Permit will be obtained through the course lab hours at the Shasta College Early Childhood Education Center or a designated Early Childhood Mentor Site.
Class Hours: 54 lecture/108 lab total (The lab portion of this course may be offered in a distance learning format to accommodate lab hours completed at a designated Early Childhood Mentor Site. Lecture hours will be regularly scheduled hours.)
This course focuses on identifying, developing and refining skills and behaviors essential for effective teaching of young children. The course is intended for students who are concurrently working or volunteering in center-based programs for young children (infant, toddler, preschool or after school care) where they have the opportunity to work directly with the children to test the methods and refine the teaching skills explored in the course.

ECE 10 EARLY CHILDHOOD LEARNING - 3 Units
Class Hours: 54 lecture total
This course focuses on the developmental learning process of children ages three to eight. Attention will be given to the application of current studies providing insight into the maturational stages as they relate to the acquisition of knowledge. Topics will include: individuality, readiness, transitions, competence, and developmentally appropriate strategies during the preschool and primary school years.

ECE 11 MEETING SPECIAL NEEDS OF CHILDREN – 2 Units
Prerequisite: A grade of C or higher in ECE 1
Class Hours: 36 lecture total
This course will focus on the special needs and behaviors of young children. Emphasis will be placed on classification and assessment of special needs, developmentally appropriate practices specific to special needs children with an emphasis on teaching strategies for classroom inclusion.

ECE 12 INFANT TODDLER LEARNING - 3 Units
Class Hours: 54 lecture total
This course focuses on developmental research and current practices in care and learning during infancy and toddlerhood. Emphasis will be on understanding developmental stages, planning optimal environments and clarifying the care giving role of teachers and child care workers for children during the first two years of life.

ECE 13 ENVIRONMENTS FOR INFANT/TODDLER, PRESCHOOL OR SCHOOL-AGE CHILD CARE (formerly ECE 133 and ECE 152D) – 2 Units
Class Hours: 36 lecture total
This course provides an in-depth study into the planning and implementation of developmentally appropriate learning environments for young children. Emphasis will be placed upon increasing the student's skills in critically analyzing education settings for young children. Special attention will be given to both indoor and outdoor environments, selection and storage of materials, appropriate application of local, state and national safety requirements. Note: Within the first two weeks of class students using this course for the Specialization requirement for the California Child Development Permit must inform the instructor of their intention and class assignments will be focused appropriately. Students will receive a letter of verification of Specialization upon successful completion of this course.

ECE 14 SCHOOL AGE AND ADOLESCENT DEVELOPMENT - 3 Units
Class Hours: 54 lecture total
A course focusing on growth, development and behavior of school age children and adolescents. Current research and theoretical concepts will be discussed and analyzed for practical implications and applications to assist those living with and/or working with school age children and adolescents.

ECE 15 HEALTH AND SAFETY IN CHILDREN'S PROGRAMS - 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
Provides an opportunity for teachers and child care workers to focus on the broad dimension of health and safety in children's programs. Fundamentals of a safe environment, including knowledge of state and local regulations, will be covered. Illness and disease identification, prevention, and care, and nutritional needs awareness will be explored. Health and safety community resources and their application to the children's curriculum will also be highlighted. This course may be offered in a distance learning format.

ECE 16 FUNDAMENTALS OF EARLY CHILDHOOD MENTORING AND SUPERVISION -2 Units
Prerequisite: A grade of C or higher in ECE 7
Advisory: A grade of C or higher in ECE 3
Class Hours: 36 lecture total
Designed to satisfy the Child Development Permit Master Teacher level and above requirement. Course content focuses on the methods and principles of supervising the adult learner in the early childhood program. Emphasis is on the role of the classroom teacher who functions as a mentor to new teachers and other adult participants while simultaneously meeting objectives for children, parents, and staff. Expanded modeling, guidance, and evaluation approaches will be examined.

ECE 20 E.C. CURRICULUM: INTRODUCTION TO CURRICULUM - 2 Units
Class Hours: 36 lecture total (when offered in the Distance Education format, hours will total 108)
This course introduces the student to developmentally-based curriculum for young children in early care and learning settings. The course includes a rationale for organizing and implementing daily, monthly, and long-range activity planning. Students will acquire an understanding of the philosophies and strategies for developing and documenting integrated curricula for early childhood programs. This course may be offered in a distance learning format.

ECE 22 E.C. CURRICULUM: INFANT/TODDLER CARE - 1 Unit
Class Hours: 18 lecture total
A course focusing on the planning, preparation and presentation of developmentally appropriate curriculum activities and materials for use with infants and toddlers to support physical, social-emotional, cognitive and language development.

ECE 24 E.C. CURRICULUM: SCHOOL AGE CARE – 1 Unit
Class Hours: 18 lecture total
This course will examine the planning and presentation of curriculum experiences for school age children in an extended care setting. Opportunities to develop skills in enhancing the school age child's day with developmental experiences and positive social interaction will be provided. Focus will be placed on individualized and group activities to encourage the development of self-esteem, motivation for learning, and recreational skills.

ECE 26 THE CHILD WITH SPECIAL NEEDS – 3 Units
Prerequisite: A grade of C or higher in ECE 1
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course will focus on early childhood education and children with special needs. Developmental, educational, and family issues related to children and youth with disabilities and giftedness will be presented. The course also provides an overview of special education as a professional discipline, including its history, laws, challenges and current trends and issues. This course will explore different types of special needs identified in children including children who are: gifted, developmentally delayed, learning disabled, as well as children with: emotional and behavioral disorders, communication disorders, sensory disorders, neurological disorders, and health impairments. This course may be offered in a distance learning format.

ECE 27 TEACHING CHILDREN WITH SPECIAL NEEDS & EARLY INTERVENTION STRATEGIES – 3 Units
Prerequisite: A grade of C or higher in ECE 26
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course focuses on learning to work with children birth to eight years of age with disabilities and other special needs and their families in inclusive early childhood educational settings. It will include an exploration of the following: characteristics of young children with disabilities and other special needs; impact on the family; types of educational and other programs/services that are available; modification of the educational environment; approaches to assessment and curriculum; integration and future trends. Upon completion, students should be able to recognize atypical development, make appropriate referrals, and work collaboratively to plan, implement, and evaluate inclusion and intervention strategies. This course may be offered in a distance learning format.

ECE 30 E.C. CURRICULUM: PHYSICAL DEVELOPMENT - 3 Units
Prerequisite: A grade of C or higher in ECE 20
Class Hours: 54 lecture total
Students will explore the factors that affect and facilitate physical growth and development of young children. The course will first explore the developmental aspects of planning appropriate experiences with application of children's assessed needs and interests. An integrated curriculum will be created with focus on three curriculum content areas: health and nutrition; music and rhythm; and perceptual and motor development. Curriculum planning for physical development will include documentation of integrated experiences, focusing on appropriate early childhood care and learning and literacy practices that strengthen children's physical abilities.

ECE 40 E.C. CURRICULUM: AFFECTIVE DEVELOPMENT - 3 Units
Prerequisite: A grade of C or higher in ECE 20
Class Hours: 54 lecture total
This course is designed to offer students strategies for supporting affective development with specific guidance directed to young children's social, emotional, and creative needs. This study acquaints students with techniques for planning and implementing activities that help young learners achieve aesthetic and social awareness. An integrated curriculum will emerge with emphasis on art expression, creative dramatics, and self understanding. Students will learn to plan activities for young children with focus on language and literacy practices as well as inclusion and cultural strengths.

ECE 50 E.C. CURRICULUM: COGNITIVE DEVELOPMENT – 3 Units
Prerequisite: A grade of C or higher in ECE 20
Class Hours: 54 lecture total
This course presents methods and rationale for enhancing young children's thinking and language abilities. Students will acquire skills to coordinate experiences that integrate activities from curriculum areas including communication and literacy, mathematics, and science. The coursework will require students to organize and implement appropriately planned activities that meet young children's needs and instructional accountability. Students will acquire strategies with focus on intentional learning for integrating literacy practices that strengthen young children's cognitive skills.

ECE 51 EARLY CHILDHOOD STAFFING AND MANAGEMENT - 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course offers an expanded study of operational resources to manage an early care and learning program for young children. The managerial process in an early childhood education setting will be reviewed with special attention given to staff interrelationships as well as communication skills with parents and volunteers. The selection process for staffing a program for young children will be explored with study of performance evaluation, retention and professional development. This course may be offered in a distance learning format.

ECE 52 GUIDANCE IN ADULT-CHILD RELATIONS - 3 Units
Class Hours: 54 lecture total
This course explores principles and strategies of positive guidance that are both effective and flexible for adults interacting with young and school age children. Cognitive, social, and emotional characteristics and needs of children will be examined. This course would be of interest to parents, educators, caregivers, and any adult involved with or interested in children.

ECE 94 EARLY CHILDHOOD EDUCATION WORKSITE LEARNING - 1-4 Units
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

ECE 152 THE YOUNG CHILD: MOVEMENT, RHYTHM, AND SINGING (formerly ECE 152A) - 1 Unit
Class Hours: 18 lecture total
A course exploring advanced techniques in the planning and presentation of curriculum appropriate for young children in the areas of movement, rhythm and singing.

ECE 155 THE YOUNG CHILD: INTRODUCTION TO THE MONTESSORI METHOD (formerly ECE 152F) - 1 Unit
Class Hours: 18 lecture total
This course will introduce the student to the teaching and theory of Dr. Maria Montessori. This method of preparing a preschool environment, which promotes independence in the young child, will be presented through lectures and demonstrations.

ECE 197 SPECIAL TOPICS IN EARLY CHILDHOOD EDUCATION - .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in early childhood education. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

EARTH SCIENCE (ESCI)

(formerly Geology and Physical Science)

ESCI 1 PHYSICAL GEOLOGY (formerly GEOL 1/1A) – 4 Units (CAN# GEOL 2)
Note: Required field trips.
Class Hours: 54 lecture/54 lab total
An introduction to the physical processes that drive Earth as a dynamic planet. Both internal and external processes are considered as well as their inter-relationships. Discussion in the course will include Earth's internal structure, plate tectonics, minerals and rocks and their origins, surface processes, geologic structures such as faulting and folding, metamorphism, sedimentation, soil formation, geologic time including radiometric methods, geologic hazards such as earthquakes, volcanism, mass wasting, flooding, and the vital nature of Earth materials to society. Laboratory activities will focus on the application of classroom concepts and will include mineral and rock identification, geologic structures, topographic and geologic map use, use of remote imagery, recognition of landforms, geologic time, seismology, and volcanism.

ESCI 2 HISTORICAL GEOLOGY (formerly GEOL 2/1B) – 4 Units
Prerequisite: A grade of C or higher in ESCI 1, or ESCI 5, or ESCI 6, or ESCI 7, or ESCI 10, or ESCI 12, or ESCI 15, or ESCI 17
Note: Required day and overnight field trips.
Class Hours: 54 lecture/54 lab total
The study of Earth history as revealed in the rock record and the placement of varied geologic events through time. Discussion in this course will include the genesis of minerals and three rock types, principles of stratigraphy, geologic structures, organic evolution, relative and absolute geologic time, paleogeography, and mountain building episodes of North America with emphasis on the west coast. Plate tectonics and crustal evolution will provide a framework for the preceding. Laboratory exercises will include the description and classification of minerals and rocks; recognition of ancient metamorphic, igneous and sedimentary environments; recognition, occurrence, and geologic use of fossil organisms; application of stratigraphic principles; recognition of geologic structures; and the development and use of different types of geologic maps and cross sections.

ESCI 3 MINERALOGY AND CRYSTAL OPTICS (formerly GEOL 3) – 5 Units
Prerequisite: A grade of C or higher in ESCI 1
Corequisite: Students must be concurrently enrolled in, or have previously completed CHEM 1A with a grade of C or higher
Class Hours: 54 lecture/108 lab total
An exploration into the chemistry, classification, optics and crystalline structure of minerals. Topics covered in the course will include the chemistry, bonding, and crystalline structure of minerals, recognition of crystal types, physical properties of minerals, mineral classification as well as their origins, occurrence, and use, and an introduction to the theory of optical identification of minerals. Laboratory activities will include crystallography, physical properties testing, mineral classification, and optical techniques to identify mineral crystals with an introduction to uniaxial and biaxial minerals.

ESCI 4 ROCK ORIGINS AND RELATIONSHIPS (formerly GEOL 4) – 4 Units
Prerequisite: A grade of C or higher in ESCI 2 and a grade of C or higher in ESCI 3
Note: Required day field trips.
Class Hours: 54 lecture/54 lab total
A survey of igneous, sedimentary, and metamorphic rocks presented in the context of recognizing processes responsible for rock origins. Rock classification based both on mega- and microscopic textures and mineralogy is fundamental to interpretation and provides the main discussion of topic for the course and laboratory. Specialized topics include magmatic differentiation and emplacement, sedimentary rock provenance and depositional environments, and metamorphic rocks as pressure and temperature indicators. Rock assemblages will be considered with the purpose of interpreting their origins at larger scales. Field trips to various localities will observe rock assemblages that demonstrate different origins.

ESCI 5 INTRODUCTION TO GEOLOGY (formerly GEOL 5) – 4 Units
Note: Required field trip. The lecture portion of this course may be offered as distance education.
Class Hours: 54 lecture/54 lab total (when offered in the Distance Education format, hours will total 162 for the lecture portion of the class and an additional 54 hours of lab totaling 216 hours for this course.)
A survey course for non-science majors designed to introduce the discipline of geology and its vital influence on society. Among the topics to be discussed are geologic hazards such as volcanoes and earthquakes, Earth materials and economic resources, processes which shape Earth's surface, internal processes and their manifestations, environmental geology, geologic time, reconstruction of Earth history, and the fossil record. Laboratory activities include mineral and rock identification, map use, evaluation of geologic hazards associated with different geologic threats, the impacts of environmental geology an natural resources consumption on society, and the economic geology and exploration for ores and petroleum deposits. The lecture portion of this course may be offered in a distance learning format.

ESCI 6 ANCIENT LIFE (formerly GEOL 6) – 4 Units
Note: Required day field trips.
Class Hours: 54 lecture/54 lab total (When offered in a distance Education format, hours will total 162 for the lecture portion of the class and an additional 54 hours of lab totaling 216 hours for this course)
A survey of past life is presented through geologic and biologic investigation. This course is interdisciplinary in nature and provides geologic background and evidence for the origination and evolution of life. Associated methodologies and concepts presented include geologic time and its measure, chemical and organic evolution, controls on evolution, cladistic analysis, ancient ecological reconstruction, mass extinction and adaptive radiation, fossilization, and ancient geographic distributions of flora and fauna. Anatomical innovations that define major classes of organisms are traced through ancestor-descendant relationships. Laboratory exercises include processes of fossilization, fossil recognition, cladistic analysis, genetics, stratigraphy, reconstruction of ancient biologic communities, ancient geographic recon-struction through fossil information, functional morphology, mass extinction and adaptive radiation in the fossil record. This course may be offered in a distance learning format. The lecture potion of this course may be offered in a distance learning format.

ESCI 7 INTRODUCTION TO THE GEOLOGY OF CALIFORNIA (formerly GEOL 7/25) – 4 Units
Note: Required field trips (day trips and overnight trips)
Class Hours: 54 lecture/54 lab total
As the newest material added to North America, California geology records ancient and continued mountain building which has shaped the state into landforms and geologic features. Each geomorphic province in California records unique rock packages indicative or ancient and modern processes. Discussions in the course will include geologic hazards such as earthquakes, volcanism, and mass wasting, plate tectonics, economic resources, state and national parks, ground and surface water, soils, glaciation, coastal processes, desert land-forms, and the geologic history of the state. Laboratory exercises will include mineral and rock identification and classification, topographic and geologic maps; landforms; stratigraphy; aerial photo interpretation; and mineral, rock and data collection on field trips.

ESCI 8 PLANETARY GEOLOGY: DEVELOPMENT, HISTORY & PLANETARY PROCESSES (formerly GEOL 8/22) – 3 Units
Note: Required field trips and/or evening observations when possible
Class Hours: 54 lecture total
An introduction to the physical processes that shape planetary surfaces and guide their development through time. The course will explore the origins of the solar system and use Earth as a planetary "model" to perform systematic and comparative investigations of the planets and other bodies in the solar system. Recent information gathered by Earth-based and orbiting observation platforms and un-manned planetary probes will be used to investigate planetary processes, develop planetary histories and differentiate the varied pathways and processes that have influenced each planet's evolution. The course will also consider the Sun and its influence on the planets and other bodies in the solar system, as well as asteroids, comets, meteors and impacts on planetary surfaces.

ESCI 9 EARTHQUAKES, VOLCANOES, AND OTHER GEOLOGIC HAZARDS (formerly GEOL 9/20) – 3 Units
Note: Required field trips
Class Hours: 54 lecture total (When offered in a distance Education format, hours will total 162. A scheduled field trip will still be required for the online course.)
This introductory course considers geologic hazards and their impact on society in part through the utilization of case histories, many of which are from California. The course will focus on earthquakes and volcanism specifically considering the dynamics of these two phenomena. Other topics to be discussed include tsunami origination and development, types of mass wasting and their controlling factors and influences, and flooding. A portion of the course will also describe geologic hazards that are human influenced or caused, such as soil erosion, acid rain, ground-water contamination and ground subsidence. Engineering mitigation, hazard preparedness and remediation strategies complete the course. This course may be offered in a distance learning format.

ESCI 10 ENVIRONMENTAL GEOLOGY (formerly GEOL 10/40) – 4 Units
Note: Required field trips.
Class Hours: 54 lecture/54 lab total
Geologically related impacts on the environment, both natural and human-influenced, provide the subject content for this course. Emphasis is placed on human and environmental interactions with discussions regarding natural resources and their exploitation, pollution and waste disposal, climate change, land use and engineering, and energy resources. Earth processes which result in environmental catastrophes, environmental change, and an impact on society are also considered including topics such as earthquakes, volcanism, flooding, mass wasting, coastal processes, and climate trends. Laboratory activities will focus on Earth materials, water resources and contamination, hazardous waste storage, mining and resource exploitation, and pollution.

ESCI 11 ECONOMIC GEOLOGY (formerly GEOL 11) – 3 Units
Prerequisite: A grade of C or higher in ESCI 1 and a grade of C or higher in ESCI 3
Note: Required field trips.
Class Hours: 36 lecture/54 lab total
An introduction to economic deposits, their origins and associations, and recovery. This course will review the basic geological concepts in the context of economic deposits and then apply those concepts to exploration, evaluation, and recovery. Industrial and precious metals as well as fossil fuels (oil, gas, and coal) will provide the main focus of the course. Exploration techniques in geophysics, remote imagery, and computer-aided analysis will also be considered. Laboratory exercises will evaluate material for its economic potential using the identification of mineral and rock associates, geologic maps and remote images, and geophysical techniques and data collection. Additionally, the volume, value, and recovery costs of an ore deposit will be reviewed.

ESCI 12 GENERAL EARTH SCIENCE (formerly PHSC 2/PHSC 2 and PHSC 3) - 4 Units
Note: Required field trips. The lecture portion of this course may be offered as distance education.
Class Hours: 54 lecture/54 lab total (when offered in the Distance Education format, hours will total 162 for the lecture portion of the class and an additional 54 hours of lab totaling 216 hours for this course.)
A survey course designed for non-science majors which spans the Earth-related sciences, including geology, oceanography, meteorology and astronomy. In general, the course focuses on physical processes and materials as related to each discipline. Topics include the geologic evolution of the Earth, economic resources derived from the Earth, Earth materials, evolution and character of the oceans, ocean-atmosphere interactions, atmospheric processes including weather and climate, the solar system and Earth as part of the universe. The laboratory portion of this course provides hands-on activities that support and demonstrate lecture concepts. The lecture portion of this course may be offered in a distance learning format.

ESCI 14 METEOROLOGY (formerly PHSC 4) – 4 Units
Class Hours: 54 lecture/54 lab total
Dynamic aspects of the atmosphere responsible for climate and weather represents the main focus of this course. Topics include atmospheric composition, solar radiation, global heat transfer, atmospheric moisture, pressure and atmospheric circulation, air masses, weather patterns and forecasting, storms including hurricanes and tornadoes, air pollution and ozone, and global climate changes. Applicable fundamental science concepts such as state changes, heat transfer mechanisms, and the physical and chemical aspects of the media involved in weather are also introduced. Laboratory exercises will include analyses of incoming solar radiation, heat transfer in the atmosphere, humidity measurements, atmospheric motion, weather maps, storms characteristics and climate controls and climate change.

ESCI 15 OCEANOGRAPHY (formerly PHSC 5) – 4 Units
Note: Required overnight field trip.
Class Hours: 54 lecture/54 lab total (when offered in the Distance Education format, hours will total 162 for the lecture portion of the class and an additional 54 hours of lab totaling 216 hours for this course.)
Global ocean dynamics are part of an intricate system that influences world climate and both terrestrial and oceanic life. Basic principles and concepts are presented including ocean origins, ocean basin formation, seawater, composition and characteristics, oceanic circulation, and the marine habitat providing a holistic view to the study of the oceans. Coastal processes such as waves and tides, erosion and deposition, and land forms are also considered. Laboratory activities will survey marine geology including plate tectonic and ocean basin topography, chemical oceanography, physical oceanography such as circulation, waves and tides, and biological oceanography including marine organisms, marine ecosystems and nutrient flow. The lecture portion of this course may be offered in a distance learning format.

ESCI 16 COASTAL OCEANOGRAPHIC FIELD STUDIES (formerly PHSC 6) – 2 Units
Note: Required overnight field trip.
Class Hours: 27 lecture/27 lab total
An introduction to the coastal oceanography of northern California and coastal habitat evaluation. The course will include a three-day field trip along the northern California coast. In general, the course will focus on oceanographic concepts associated with estuaries, tidal flats, sandy shores, rocky shores, lagoons, and the shallow continental shelf. Lecture meetings will present basic concepts in oceanography including chemical, physical, geologic, and biologic realms, as related to the coastal zone and with an emphasis on the inter-related nature of these topics. Laboratory activities on campus will include charting and navigation, data synthesis and analysis while the coast field trip itself will represent the bulk of the lab experience. Field trip exercises will be conducted at various stops including oceanographic sampling and data collection.

ESCI 17 EARTH SYSTEM SCIENCE (formerly PHSC 7) – 3 Units
Note: Required day field trips
Class Hours: 54 lecture total
Earth is a dynamic plant, changing in response to natural process within the atmosphere, geosphere, hydrosphere and biosphere. Modern science is now viewing the Earth system in its entirety, the sum of its parts, in an effort to understand how processes in one sphere impact those in another. This course stresses the inter-relationships of these systems and reviews natural cycles and positive and negative feedback pathways that operate over various time scales to affect global environmental change. The impact of civilization on the Earth system is also analyzed as the course considers pollution, over population, global warming, deforestation, desertification, resource depletion, and biologic extinctions.

ESCI 18 GLOBAL CLIMATE CHANGE: PAST, PRESENT AND FUTURE – 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
Atmospheric processes, on a global and local scale, are considered as they determine weather and climate through time. Natural influences on the atmosphere include the global ocean, the sun, and volcanisms on planet Earth, each directing atmospheric responses in a different manner. Past climate conditions on Earth, and the science used to determine those conditions through rock, sediment and ice cores, will be explored. Human influences on the atmosphere will be considered as well as a review of the observations that have lead to scientific consensus on global climate change. Current trends in climate change will be extrapolated into the future as directed by climate modeling and their consequences considered. This course may be offered in a distance learning format.

ESCI 23 INTRODUCTION TO GEOLOGY IN THE FIELD (formerly GEOL 13/13AB) – 2 Units (P/NP Option)
Prerequisite: A grade of C or higher in ESCI 1, or ESCI 5, or ESCI 6, or ESCI 7, or ESCI 10, or ESCI 12 and a grade of C or higher in ESCI 2
Note: Includes required day field trips.
Class Hours: 27 lecture/27 lab total
An introduction to methods used to collect and interpret geologic data. Lecture sessions will provide theory and background for field excursions as well as compilation periods to devise interpretations, assemble geologic summary reports, graphics, and maps. Emphasis will be placed on field equipment and its use, outcrop examination and interpretation, rock and mineral identification, utilization of topographic maps, utilization and construction of geologic maps and cross sections, construction of stratigraphic columns, utilization of aerial and satellite imagery, recognition and interpretation of geologic structures, and recognition and interpretation of primary and secondary features in outcrops and different rock types. Two or more field sites will provide the focus of the course.

ESCI 26 GEOLOGY OF THE NORTH COAST RANGES (formerly GEOL 26/26AB) – 2 Units (P/NP Option)
Prerequisite: A grade of C or higher in ESCI 1, or ESCI 5, or ESCI 6, or ESCI 7, or ESCI 10, or ESCI 12
Note: Includes two required overnight field trips.
Class Hours: 27 lecture /27 lab total
The North Coast Ranges geomorphic province represents a zone of active mountain building and the most recently added material to the North American Continent. The province will be explored through lecture topics and field excursions that will relate active tectonics, accretion, and mountain building to the rocks now exposed in the North Coast Ranges. Coastal exposures will demonstrate the tectonics processes that are actively shaping this province and have done so for over 100 million years. Structural, lithologic, economic, and geomorphologic aspects of the province, as well as geologic hazards are also investigated.

ESCI 27 GEOLOGY OF THE KLAMATH MOUNTAINS (formerly GEOL 27/27A) – 2 Units (P/NP Option)
Prerequisite: A grade of C or higher in ESCI 1, or ESCI 5, or ESCI 6, or ESCI 7, or ESCI 10, or ESCI 12
Note: Two overnight field trips are required
Class Hours: 27 lecture/27 lab total
The diverse and complex geologic history of the Klamath Mountains geomorphic province will be explored through lecture topics and field excursions. Plate tectonics and mechanisms of continental growth will provide the conceptual background needed to frame the assembly of varied tectonostratigraphic terrains which represent this province. Structural, magmatic, lithologic, economic, and geomorphologic aspects of the province, as well as geologic hazards are also investigated.

ESCI 32 GEOLOGY OF THE NORTHERN SIERRAS (formerly GEOL 32) – 1.5 Units (P/NP Option)
Note: Required field trip.
Class Hours: 18 lecture/27 lab total (When offered in a Distance Education format, hours will total 54 for the lecture portion of the class and an additional 27 hours of lab totaling 81 hours for this course.)
An introduction to the geologic processes that have shaped the northern Sierras into a geologically diverse setting. The course will culminate with a three-day field trip through the northern Sierras. Lecture meetings will present basic concepts in geology as well as topics specific to the northern Sierras such as continental growth, multiple mountain building and landscape development, glaciation and related geomorphology, and "mother-lode" economic geology. Field trip exercises will also be conducted at various stops. The lecture portion of this course may be offered in a distance learning format.

ESCI 33 GEOLOGY OF THE SACRAMENTO VALLEY (formerly GEOL 33/27B) – 1.5 Units (P/NP Option)
Note: Required overnight field trip.
Class Hours: 18 lecture /27 lab total (When offered in a Distance Education format, hours will total 54 for the lecture portion of the class and an additional 27 hours of lab totaling 81 hours for this course.)
An introduction to the geology of the Sacramento Valley that will culminate with a two-and-a-half day overnight field trip through this geomorphic province. Lecture meetings will present basic concepts in geology needed to understand the geologic history of the Sacramento Valley as well as outcrops visited during the field trip. Topics to be discussed include geologic hazards, economic resources, volcanism, faulting, river processes, and the Pleistocene geology of the valley. Field trip exercises will also be conducted at various stops. The lecture portion of this course may be offered in a distance learning format.

ESCI 34 GEOLOGY OF THE MODOC PLATEAU (formerly GEOL 34/61AB) – 1.5 Units (P/NP Option)
Note: Required overnight field trip.
Class Hours: 18 lecture/27 lab total (When offered in a Distance Education format, hours will total 54 for the lecture portion of the class and an additional 27 hours of lab totaling 81 hours for this course.)
An introduction to the geology of the Modoc Plateau which will culminate with a two-and-a-half-day overnight field trip through this geomorphic province. Lecture meetings will present basic concepts in geology needed to understand the geologic history of the Modoc Plateau as well as outcrops visited during the field trip. Topics to be discussed include volcanic processes and features, geologic hazards, geothermal potential, economic resources, faulting, plateau development, basin and range development, and surface and subsurface water. Field trip exercises will also be conducted at various stops. The lecture portion of this course may be offered in a distance learning format.

ESCI 35 GEOLOGY OF LASSEN VOLCANIC PARK (formerly GEOL 35/62AB) – 1.5 Units (P/NP Option)
Note: Required overnight field trip.
Class Hours: 18 lecture/27 lab total (When offered in a Distance Education format, hours will total 54 for the lecture portion of the class and an additional 27 hours of lab totaling 81 hours for this course.)
An introduction to the geology of Lassen Volcanic Park that will culminate with a two-and-a-half day overnight field trip within and around the park. Lecture meetings will present basic concepts in geology needed to understand the geologic history of the park as well as outcrops visited during the field trip. Topics to be discussed include volcanic processes and features, volcanic and geothermal hazards, geothermal potential, glaciation and faulting. Field trip exercises will also be conducted at various stops. The lecture portion of this course may be offered in a distance learning format.

ESCI 36 GEOLOGY OF MOUNT SHASTA AND VICINITY (formerly GEOL 36/64AB) – 1.5 Units (P/NP Option)
Note: Required overnight field trip.
Class Hours: 18 lecture/27 lab total (When offered in a Distance Education format, hours will total 54 for the lecture portion of the class and an additional 27 hours of lab totaling 81 hours for this course.)
An introduction to the geology of Mount Shasta and surrounding areas which will culminate with a two-and-a-half day overnight field trip to and around the mountain. Lecture meetings will present basic concepts in geology needed to understand the geologic history of Mount Shasta as well as outcrops visited during the field trip. Topics to be discussed include volcanic processes and features, volcanic hazards, earthquakes, eruption predictability, geothermal activity, glaciation and mass wasting events. Field trip exercises will also be conducted at various stops. The lecture portion of this course may be offered in a distance learning format.

ESCI 37 GEOLOGY OF THE NORTHERN CALIFORNIA COAST (formerly GEOL 37) – 1.5 Units (P/NP Option)
Note: Required overnight field trip.
Class Hours: 18 lecture/27 lab total (When offered in a Distance Education format, hours will total 54 for the lecture portion of the class and an additional 27 hours of lab totaling 81 hours for this course.)
An introduction to the geologic processes which have shaped and continue to shape northern California's coastline. The course will culminate with a two-and-a-half day overnight field trip along the coast. Lecture meetings will present basic concepts in geology as well as topics specific to northern California's coastline such as geologic hazards including earthquakes, tsunamis, mass wasting events, and shore erosion, tidal processes, erosion and depositional processes, active mountain building, and geomorphology. Field trip exercises will also be conducted at various stops. The lecture portion of this course may be offered in a distance learning format.

ESCI 38 GEOLOGY OF POINT REYES NATIONAL SEASHORE (formerly GEOL 38) – 1.5 Units (P/NP Option)
Note: Required overnight field trip.
Class Hours: 18 lecture/27 lab total (When offered in a Distance Education format, hours will total 54 for the lecture portion of the class and an additional 27 hours of lab totaling 81 hours for this course.)
An introduction to the geologic processes which have shaped and continue to shape the Point Reyes National Seashore. The course will culminate with a three day overnight field trip to the national seashore. Lecture meetings will present basic concepts in geology as well as topics specific to Point Reyes such as the San Andreas Fault system, geologic hazards including earthquakes, tsunamis, and mass wasting events, tidal and estuarine processes, and the area geomorphology. Field trip exercises will also be conducted at various stops. The lecture portion of this course may be offered in a distance learning format.

ESCI 42 GEOLOGY OF THE REDDING AREA (formerly GEOL 42/100) – 1 Unit (P/NP Option)
Note: Two required day field trips.
Class Hours: 9 lecture/27 lab total (When offered in a Distance Education format, hours will total 27 for the lecture portion of the class and an additional 27 hours of lab totaling 54 hours for this course.)
This introductory, short-term field class that will introduce the student to geologic features in the Redding area. Included in the lecture meetings is a basic introduction to geology and the concepts necessary to appreciate the geologic history recorded in the rocks near town. Mining aspects will also be introduced. Field trip activities will explore rock relationships and visit points of interest and significance around the Redding area over two 8-hour outings. The lecture portion of this course may be offered in a distance learning format.

ESCI 43 GEOLOGY OF THE SHASTA LAKE AREA (formerly GEOL 43/102) – 1 Unit (P/NP Option)
Note: Two required day field trips
Class Hours: 9 lecture/27 lab total (When offered in a Distance Education format, hours will total 27 for the lecture portion of the class and an additional 27 hours of lab totaling 54 hours for this course.)
This course is an introductory, short-term field class that will introduce the student to geologic features in the Shasta Lake area including those that are associated with Shasta Dam and the Sacramento River. Included in the lecture meetings is a basic introduction to geology and discussions related to damming the Sacramento River including engineering and ecosystem considerations. The geologic history of record in the area will be demonstrated though rock features such as fossil content. Field trips activities will explore rock relationships, river, lake and relationships and other points of significance during two 8-hour outings. The lecture portion of this course may be offered in a distance learning format.

ESCI 44 GEOLOGY OF THE WHISKEYTOWN AREA (formerly GEOL 44) – 1 Unit (P/NP Option)
Note: Two required day field trips
Class Hours: 9 lecture/27 lab total (When offered in a Distance Education format, hours will total 27 for the lecture portion of the class and an additional 27 hours of lab totaling 54 hours for this course.)
The geologic history recorded in the Whiskeytown National Recreation area will be discussed with an introduction to relevant geologic concepts, accompanied by on-site explorations to demonstrate those concepts. Accretion, shear zone dynamics, magma chamber evolution and emplacement and the economic geology of the area are among the topics to be explored. The field trip will emphasize theory with field application as we visit points of interest and significance during two 8-hour outings. The lecture portion of this course may be offered in a distance learning format.

ESCI 45 GEOLOGY OF CASTLE CRAGS AND VICINITY (formerly GEOL 45) – 1 Unit (P/NP Option)
Note: Two required day field trips.
Class Hours: 9 lecture/27 lab total (When offered in a Distance Education format, hours will total 27 for the lecture portion of the class and an additional 27 hours of lab totaling 54 hours for this course.)
Castle Crags and the upper Sacramento River will provide the backdrop for an introduction to the geologic history and processes which have shaped this area. Lecture meetings will present relevant geologic concepts while on-site explorations will demonstrate those concepts. Topics will include glaciation, river dynamics, sea floor accretion, magma chamber evolution and emplacement and ancient environments. The field trip will emphasize theory with field application as we visit points of interest and significance during two 8-hour outings. The lecture portion of this course may be offered in a distance learning format.

ESCI 46 GEOLOGY OF BURNEY FALLS AND VICINITY (formerly GEOL 46) – 1 Unit (P/NP Option)
Note: Two required day field trips.
Class Hours: 9 lecture/27 lab total (When offered in a Distance Education format, hours will total 27 for the lecture portion of the class and an additional 27 hours of lab totaling 54 hours for this course.)
As a part of the southern Cascades and southern Modoc Plateau, the Burney Falls area presents an excellent backdrop for considering the evolution of volcanic mountain chains. In addition, water resources are among the most impressive in the country as springs in the area emit millions of gallons of water daily. Lecture meetings will focus on relevant concepts while on-site explorations will allow for the synthesis of those concepts with on-site observations. Volcanology, surface and subsurface hydrogeology including erosive forces as displayed by Burney Falls, and ancient environments such as vast ancient lake deposits, represent some of the topics explored in this course. The field trip will emphasize theory with field application as we visit points of interest and significance during two 8-hour outings. The lecture portion of this course may be offered in a distance learning format.

ESCI 97 SPECIAL TOPICS IN EARTH SCIENCE (formerly GEOL 97) – .5-2 Units
Note: Required field trips.
Class Hours: 9-36 lecture total
This course will provide students with a focused topic in the expanding fields of the geosciences. The topics chosen will be characterized by recent advances in the field and/or by multi-disciplinary approaches to traditional subjects. Topics will vary with each course offering and will be listed in the schedule of classes. Since the subject matter of this course varies with each offering, this course is repeatable three times for a total of four enrollments.

ESCI 98 SPECIAL LAB TOPICS IN EARTH SCIENCE (formerly GEOL 98) – .5-1 Unit
Note: Required field activities.
Class Hours: 27-54 lecture total
This course will provide students with an introduction to recent technological advances or multidisciplinary approaches to laboratory and field techniques in the geosciences. Topics will vary with each course offering and will be listed in the schedule of classes. Since the subject matter of this course varies with each offering, this course is repeatable three times for a total of four enrollments.

ECONOMICS (ECON)

ECON 1A PRINCIPLES OF ECONOMICS (MICRO) – 3 Units (P/NP Option) (CAN# ECON 4)
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher (ECON 1A is not a prerequisite for ECON 1B)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course is a study of the basic institutions and principles of microeconomics and so it concentrates on the parts of an economic system; the markets, the producers, the consumers and the structures of basic industries along with systems for relative resource use and income determination. This course may be offered in a distance learning format.

ECON 1B PRINCIPLES OF ECONOMICS (MACRO) – 3 Units (P/NP Option) (CAN# ECON 2)
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher (ECON 1A is not a prerequisite for ECON 1B)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course studies the basic economic institutions and principles as they pertain to the entire economic system such as money and banking, determinants of national income, employment, output and the roles played by government in using monetary and fiscal policy to promote the mandates of the Employment Act of 1946. This course may be offered in a distance learning format.

ECON 2 ECONOMIC ISSUES AND POLICIES - 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course approaches the study of economics not from the standpoint of theory and principle but through the investigation of problems. The purpose is to identify cause and to construct solutions while being mindful of the philosophies, values, and attitudes involved. This course is designed specifically for those not required to take ECON 1A-1B. This course may be offered in a distance learning format.

ECON 17 ECONOMIC HISTORY OF THE UNITED STATES – 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Note: Combined with POLS 2, ECON 17 satisfies the CSU requirement in US History, Constitution, and American ideals
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This survey course combines the approaches of the economist and of the historian for an alternative investigation into the origins and into the evolution of the United States. For events, movements and trends seemingly non-economic in nature, this course will identify and analyze the often hidden economic components. For events, movements and trends considered mainly economic in nature, other aspects such as social and political components will be identified, analyzed and synthesized with the economic for a more complete historical investigation. This course may be offered in a distance learning format.

EDUCATION (EDUC)

EDUC 1 INTRODUCTION TO TEACHING - 3 Units
Class Hours: 54 lecture total
For prospective teachers, paraprofessionals, tutors, classroom volunteers/mentors, and others interested in education, this introductory course focuses on contemporary education practices and theories. Topics include: educational history, organization, teacher-child relationships, teaching methods, school resources, staff relations, curriculum patterns, authority, and discipline in the schools.

EDUC 2 LITERACY AND LEARNING – 3 Units
Class Hours: 54 lecture total
This course serves as a theoretical framework for prospective teachers, paraprofessionals, and continuing professional development regarding how humans acquire language and literacy skills from childhood through adulthood. It provides practical information for developing language and literacy in a pluralistic multi-cultural society, which will enhance first and second language and cognitive development. This course is useful preparation for CLAD credential requirements.

EDUC 7 BEHAVIOR MANAGEMENT IN EDUCATION – 2 Units
Class Hours: 36 lecture total
Designed for prospective teachers, paraprofessionals, tutors, classroom volunteers/mentors, and others interested in education to work effectively with individual and small groups of students in today's classroom. Topics include effective communication and behavior management strategies.

EDUC 8 ELEMENTARY EDUCATION CURRICULUM – 3 Units
Class Hours: 54 lecture total
This course is designed to prepare elementary school educators with the knowledge and understanding to assist with the implementation of elementary curriculum. Topics will include an understanding of the California essential standards, and the use of specific grade level assessments to effectively address individual student needs.

EDUC 10 LAWS AND SERVICES FOR SPECIAL EDUCATION – 3 Units
Class Hours: 54 lecture total
This course is designed to prepare prospective teachers, paraprofessionals, tutors, classroom volunteers/mentors, and others interested in education to work effectively with students identified as having special education needs. The course will cover the 13 handicapping conditions, how students qualify for special education services, and the laws and regulations that govern special education practices.

EDUC 94 EDUCATION WORKSITE LEARNING - .5-4 Units
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

EDUC 97 SPECIAL TOPICS IN EDUCATION - .5-3 Units (P/NP Option)
Class Hours: 9-54 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in education. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

EDUC 197 SPECIAL TOPICS IN EDUCATION - .5-2 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in education. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

EDUCATION – TEACHER EDUCATION (EDTE)

EDTE 51 CLASSROOM EXPERIENCE I – READING (formerly EDTE 55) – 1.5 Units
Class Hours: 18 lecture and 27 DE total
EDTE 51 is an introduction to the teaching profession designed for students wishing to obtain a multiple subject teaching credential. Classroom instruction is aligned with fieldwork so that prospective teachers acquire planned structured observations and experiences in K-8 classrooms that demonstrate exemplary practice as described in the California Standards for the Teaching Profession. The class provides an overview of various important aspects of the teaching profession, including current issues and legislation in education, state requirements for teacher certification, elementary school curriculum, student diversity, factors which affect learning, and effective classroom procedures and routines. Discussion sessions assist prospective teachers in making connections between college courses and instruction in elementary public schools. Emphasis is upon application in the content areas of reading and language. This course is offered in a partial distance learning format.

EDTE 52 CLASSROOM EXPERIENCE II – READING (formerly EDTE 60) – 1.5 Units
Class Hours: 18 lecture and 27 DE total
EDTE 52 is designed to deepen awareness and knowledge regarding specific important aspects of the teaching profession, including in-depth examination of curriculum and assessment requirements specified in recent legislation, specific tests required for teacher certification, student teaching, specific education and content standards, lesson planning, and effective instructional strategies to promote learning. Classroom instruction is aligned with fieldwork so that prospective teachers acquire planned structured observations and experiences in K-8 classrooms that demonstrate exemplary practice as described in the California Standards for the Teaching Profession. Discussion sessions assist prospective teachers in making connection between college courses and instruction in elementary schools. Emphasis is upon application in the content areas of reading and language. This course is offered in a partial distance learning format.

EDTE 61 MATH I CLASSROOM EXPERIENCE (formerly EDTE 65) – 1.5 Units
Class Hours: 18 lecture and 27 DE total
EDTE 61 is designed to deepen awareness and knowledge about the role, function, and responsibilities of the teacher in today's public school setting. Prospective teachers learn theories related to child development, as well as various age-level cognitive, physical, emotional and social characteristics which impact learning. Prospective teachers gain knowledge and practice regarding tests required for teacher certification, including the CBEST, CSET, and RICA. Classroom instruction is aligned with fieldwork so that prospective teachers acquire planned structured observations and experiences in K-8 classrooms that demonstrate exemplary practice as described in the California Standards for the Teaching Profession. Discussion sessions assist prospective teachers in making connections between college courses and instruction in elementary schools. Emphasis is upon application in the content area of math. This course will be offered in a partial distance learning format.

EDTE 62 MATH II CLASSROOM EXPERIENCE (formerly EDTE 70) – 1.5 Units
Class Hours: 18 lecture and 27 DE total
EDTE 62 is designed to deepen awareness and knowledge about each of the six California Standards for the Teaching Profession, including topics addressed within the standards and ways in which the standards drive and support effective instructional practices. The class promotes understanding about math content standards and developmentally appropriate strategies to teach math at various grade levels. Prospective teachers learn about effective instructional practices for diverse student populations, including English language learners, students with various types of disabilities, and students with special needs associated with economics and culture. Classroom instruction is aligned with fieldwork so that prospective teachers acquire planned structured observations and experiences in K-8 classrooms that demonstrate exemplary practice as described in the California Standards for the Teaching Profession. Discussion sessions assist prospective teachers in making connections between college courses and instruction in elementary schools. Emphasis is upon application in the content area of math. This course will be offered in a partial distance learning format.

ELECTRONIC TECHNOLOGY (ELEC)

FOR A+ CERTIFICATION, PLEASE SEE CIS 90

ELEC 30 AC/DC CIRCUITS - 6 Units
Corequisite: Students must be concurrently enrolled in, or have completed MATH 102 with a grade of C or higher, or have Math Placement Level 4 or higher
Note: Students will be required to provide a calculator, DMM and basic tools.
Class Hours: 72 lecture/108 lab total
Alternating and direct current circuits are studied using Ohm's Law, power laws, Thevenin's Therorem, and Mesh Analysis. The course will also study resistor color codes, resistive circuit analysis capacitance, inductance, reactance, impedence, R-C time constants, magnetism, generation of a wave, resonance, Phasors, instrumentation and electronic simulations as they apply to AC/DC circuits.

ELEC 31 SOLID STATE DEVICES - 4 Units
Prerequisite: A grade of C or higher in ELEC 30
Class Hours: 54 lecture/54 lab total
This class is a study of the characteristics, applications, and simulation of semiconductor devices and circuits. Devices covered are diodes, zener diodes, bipolar transistors, junction field effect transistors, and silicon-controlled rectifiers. Topics include rectification, power supplies, AC/DC load lines, biasing techniques, equivalents circuits, single and multi-stage amplifiers, and feedback application in power supplies and amplifiers. This class introduces the concept of device models and the use of electronic simulation.

ELEC 32 DIGITAL COMPUTER ELECTRONICS - 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in ELEC 30
Class Hours: 36 lecture/54 lab total
Numbering systems, binary arithmetic, basic gates, Karnough mapping, bubble convention, adders, shift registers, multiplexers, counters, 555 timers, truth tables, and flip-flops are studied. The lab experience is rich in applications and hands-on experiments. Electronic workbench software is available for student use.

ELEC 37 DIGITAL SYSTEMS - 4 Units
Prerequisite: A grade of C or higher in ELEC 33
Class Hours: 54 lecture/54 lab total
A continuation of ELEC 33 beginning with a review of the computer architecture and an overview of the IBM PC. Chip level analysis of DMA transfers, PC bus interfacing, communication protocols, CRT displays, floppy and hard disk drive technologies are discussed. Design of hardware circuits to interface microprocessors with industrial equipment and input/output transducers for control systems are also studied. Logical troubleshooting techniques of these microcomputer systems and peripheral equipment are analyzed using low level programming techniques in assembly and "C" languages.

ELEC 39 ELECTRONIC CIRCUITS AND DEVICES II – 3 Units
Prerequisite: A grade of C or higher in ELEC 35
Class Hours: 36 lecture/54 lab total
This course will cover transistor physics, graphical techniques, computer simulation and mathematical analysis. Subjects studied will include regulated power supplies, VMOS transistors, switching power supplies, and other selected topics in the analog design field.

ELEC 94 ELECTRONICS WORKSITE LEARNING – 1-4 Units
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

ELEC 97 SPECIAL TOPICS IN ELECTRONICS - .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in electronics. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

ELEC 98 SPECIAL LAB TOPICS IN ELECTRONICS – .5-2 Units (P/NP Option)
Class Hours: 27-108 lab total
This course is designed to give students an opportunity to explore a variety of activities dealing with changing topics/ knowledge in electronics. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

ELEC 138 FUNDAMENTALS OF ELECTRONICS AND ELECTRICITY (formerly ELEC 138/139) - 3 Units
Advisory: A grade of C or higher in MATH 101 or Math Placement Level 3 or higher, and a grade of C or higher in ENGL 270 or English Placement Level 4 or higher
Class Hours: 36 lecture/54 lab total
This course is designed for students who wish to be introduced to the basic principles of electronics and electricity for various vocational and industrial applications. Topics include basic theory of DC and AC circuits, semiconductor theory, digital concepts, circuits and systems and their applications.

ELEC 197 SPECIAL TOPICS IN ELECTRONICS - .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in the field of electronics. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for electronics majors; open to anyone with an interest in the topic. Note: The course may be repeated three times for a total of four enrollments.

ENGINEERING (ENGR)

ENGR 1A MEASUREMENTS AND PLANE SURVEYING – 3 Units
Prerequisite: A grade of C or higher in MATH 10 or Math Placement Level 5 or higher
Class Hours: 36 lecture/54 lab total
Surveying fundamentals including the use and care of surveying instruments such as engineers' level, transits, and theodolite. Applications include survey procedures, vertical and horizontal measurements, traverses, layout, and survey calculations. Additional topics include legal descriptions, public land surveying, advanced equipment, and GPS.

ENGR 1B PLANE SURVEYING - 3 Units
Prerequisite: A grade of C or higher in MATH 10 or Math Placement Level 5 or higher, and a grade of C or higher in ENGR 1A
Class Hours: 36 lecture/54 lab total
Application of plane surveying principles to control surveys, field astronomy, route and construction surveys and property surveys. Introduction to advanced survey equipment and related systems.

ENGR 2 CAREER PLANNING FOR ENGINEERING & ENGINEERING TECHNOLOGY - 1 Unit (P/NP Option)
Class Hours: 18 lecture total
Career opportunities and training requirements in the fields of engineering and engineering technology will be examined. Students will be assisted in developing career and educational goals. Emphasis will also be placed upon developing basic employment skills and resume writing. Student activities will develop teamwork and organizational skills appropriate to technology. The course is required of all engineering and engineering technology (electronics and drafting) majors.

ENGR 17 CIRCUITS AND DEVICES - 4 Units (CAN # ENGR 6)
Prerequisite: A grade of C or higher in MATH 4A, and a grade of C or higher in PHYS 4B
Corequisite: Students must be concurrently enrolled in, or have completed MATH 4B with a grade of C or higher
Class Hours: 54 lecture/54 lab total
This course covers Nodal and Mesh circuit analysis techniques, first and second order steady state and transient analysis using the methods of differential calculus, phasors, resonance, RLC circuits, the j operator, operational amplifiers, duality, basic digital circuits and Karnough mapping.

ENGR 20 RESIDENTIAL DESIGN (formerly ENGR 21A) - 2 Units
Corequisite: Students must be concurrently enrolled in, or have completed ENGR 29 with a grade of C or higher.
Class Hours: 18 lecture/54 lab total
This is a course in the study of residential design, including nontraditional structures and their application to single family dwellings. Course topics include costs, architectural styling, site consideration, room design and orientation, and preliminary drawings. The student designs one dwelling and develops the preliminary drawings in basic CAD for completion in the succeeding course, ENGR 21.

ENGR 21 ARCHITECTURAL DRAWING (formerly ENGR 21B) - 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in both ENGR 20 and ENGR 29
Class Hours: 36 lecture/54 lab total
The student develops a basic set of architectural drawings of a residence from preliminary drawings designed during ENGR 20 and approved by the instructor. This course teaches architectural specific CAD design software, including both 2D and 3D concepts as they relate to floor plans, elevations, foundations, roofs, and electrical plans.

ENGR 22 ENGINEERING GRAPHICS - 2 Units
Prerequisite: A grade of C or higher in ENGL 270, or English Placement Level 4 or higher; and a grade of C or higher in MATH 220 or Math Placement Level 1 or higher
Class Hours: 18 lecture/54 lab total
This course teaches the theory of orthographic projections and its use in delineating three-dimensional objects. The course begins with the basics. Topics include lettering, types of lines, geometric constructions, basic dimensioning practices, auxiliary views and a brief introduction to Computer-Aided Drafting (CAD).

ENGR 24 DESCRIPTIVE GEOMETRY - 2 Units
Prerequisite: A grade of C or higher in ENGR 22
Class Hours: 18 lecture/54 lab total
This course is a continuation of study of the theory of engineering graphics and its use in solving three-dimensional problems through the application of the principals of multi-view projections. Descriptive Geometry topics include the use of auxiliary views in finding true length, bearing and slope of lines, the true shape and edge view of surfaces, dihedral angles, shortest connectors, and the intersection between planes. Graphics topics include a review of geometric constructions and tolerancing.

ENGR 25 STRUCTURAL DRAFTING - 3 Units
Prerequisite: A grade of C or higher in each of the following courses: ENGR 22, ENGR 29, and ENGR 38
Class Hours: 36 lecture/54 lab total
This is a course in advanced drafting, focusing on structural drafting, in order to prepare drafters for industry. Topics include reference and standards research, graphic and mathematical analysis, and engineering notes. Emphasis is on structural steel design and detailing plus reinforced concrete detailing.

ENGR 26 INDUSTRIAL DRAFTING - 4 Units
Prerequisite: A grade of C or higher in ENGR 22 and a grade of C or higher in ENGR 29
Class Hours: 36 lecture/108 lab total
The advanced study and application of industrial design and drafting strategies, techniques, and standards. Prepares the drafting technician for employment in industry. Includes advanced topics in tooling jigs and fixtures, welding, graphic layout, piping, fasteners, reference data, casting design, gears and bearings, precision geometric dimensioning and tolerancing, and American Society of Mechanical Engineers (ASME) and ANSI drafting standards, document management, and checking procedures. Both manual and CAD techniques and strategies are covered. The course places emphasis on group organization and team work.

ENGR 27 MAP AND COMPUTER-AIDED DRAFTING - 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in ENGR 29
Advisory: A grade of C or higher in ENGR 1A
Class Hours: 36 lecture/54 lab total
This course teaches the use of the computer and civil design software to produce maps. Course topics include input and processing of field data, digital terrain modeling, contours, subdivisions, roads, and deed descriptions.

ENGR 29 COMPUTER-AIDED DRAFTING (CAD) - 2 Units (P/NP Option)
Prerequisite: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher; and a grade of C or higher in MATH 220, or Math Placement Level 1 or higher
Corequisite: Students must be concurrently enrolled in, or have completed ENGR 22 with a grade of C or higher
Note: Students taking the Internet format of this course must have access to and working knowledge of the Internet and Windows, plus access to the most recent version of the basic AutoCAD software.
Class Hours: 18 lecture/54 lab total (when offered in the Distance Education format, hours will total 108)
This course utilizes basic AutoCAD as a tool for efficient drafting and design development. This course helps prepare students for the growing numbers of jobs that require CAD, both for its greater efficiency and for its computer database drawings. The emphasis is on graphics with engineering applications. This course may be offered in a distance learning format.

ENGR 30 INTERMEDIATE COMPUTER-AIDED DRAFTING - 2 Units (P/NP Option)
Prerequisite: A grade of C or higher in ENGR 29
Class Hours: 18 lecture/54 lab total
This is an intermediate course using AutoCAD for drafting and design. This course builds on basic 2D CAD, develops management systems, and covers 3D CAD through solid modeling.

ENGR 31 ARCHITECTURAL DETAILING - 2 Units (P/NP Option)
Prerequisite: A grade of C or higher in ENGR 21
Class Hours: 18 lecture/54 lab total
This is a continued study of CAD as it pertains to architectural applications. The student completes the set of architectural drawings designed from the previous courses. The emphasis is in detailing sections, interior elevations, structural calculations, electrical loading, and building code compliance. The techniques for presentation renderings and commercial design considerations will also be discussed.

ENGR 32 ADVANCED CIVIL DESIGN APPLICATIONS FOR CAD - 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in both ENGR 27 and ENGR 1A
Class Hours: 36 lecture/54 lab total
This course will further the student's knowledge obtained in ENGR 27, so that the student will be better prepared as an engineering/drafting technician in a civil engineering office. Course topics include use of the computer and currently available software to process surveying data into complex topographic maps. These maps can and will be used for planimetric and profile maps as well as to process complex earthwork calculations.

ENGR 33 SOLID MODELING COMPUTER-AIDED DRAFTING (formerly ENGR 30C) - 2 Units
Prerequisite: A grade of C or higher in ENGR 29
Class Hours: 18 lecture/54 lab total
An advanced computer-aided drafting course using Mechanical Desktop and/or Inventor, to prepare students for drafting positions with high potential to advance to designer, etc. ENGR 33 builds on the skills and knowledge of ENGR 29. This course will focus on how to create 3D models, assemble and constrain assembly models. It will advance drafting skills to solve design problems and to present solutions for production or engineering processes, and to visually communicate that solution.

ENGR 35 STATICS - 3 Units (CAN# ENGR 8)
Prerequisite: A grade of C or higher in PHYS 4A
Corequisite: Students must be concurrently enrolled in, or have completed MATH 4A with a grade of C or higher
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher. Previous drafting experience is helpful
Class Hours: 54 lecture total
A course in the study of the mechanics of equilibrium of force systems acting on engineering structures. Topics include equivalent force couple systems, equilibrium, truss analysis, multi-force member analysis, centroids, distributed forces, beam stress and strain diagrams, friction, cables, moments and products of inertia, and virtual work. This course is usually followed by a course in dynamics, offered at the university upper-division level.

ENGR 37 STATICS FOR ENGINEERING TECHNICIANS AND CONSTRUCTION MANAGEMENT - 3 Units
Prerequisite: A grade of C or higher in MATH 10, or Math Placement Level 5 or higher
Class Hours: 54 lecture total
This course analyzes the external forces induced in structures and machines by various types of loading. Basic vector analysis is used to determine equivalent force-couple systems and equilibrium of two-dimensional bodies. Analysis of simple frames and machines and trusses is discussed. Frictional forces within wedges and belts are considered within units. Centroids and Area Moments of Inertia are calculated for composite objects.

ENGR 38 STRENGTH OF MATERIALS FOR ENGINEERING TECHNICIANS AND CONSTRUCTION MANAGEMENT-3 Units
Prerequisite: A grade of C or higher in ENGR 37 or a grade of C or higher in ENGR 35
Class Hours: 54 lecture total
This course analyzes the internal forces induced in structures and machines by various types of lading. Simple stresses, strains, basic mechanical properties of materials, torsion of circular shafts, shear forces and bending moments in beams, stresses in beams and beam design will be covered. Topics in deflection of beams and statically indeterminate beams may be covered.

ENGR 45 PROPERTIES OF MATERIALS - 3 Units (CAN# ENGR 4)
Prerequisite: A grade of C or higher in PHYS 4A
Class Hours: 36 lecture/54 lab total
Study of atomic and crystal structures of metallic materials and their physical, mechanical and chemical properties, and the application of basic principles to the selection and use of engineering materials.

ENGR 64 ENGINEERING MATERIAL TESTING - 3 Units
Prerequisite: A grade of C or higher in ENGL 270 or English Placement Level 4 or higher, and a grade of C or higher in MATH 220 or Math Placement Level 1 or higher
Class Hours: 36 lecture/54 lab total
This course will provide the basic understanding and experience in testing civil engineering/construction materials. Various types of test equipment and testing procedures will be covered as well as the computations associated with the individual tests.

ENGR 94 ENGINEERING WORKSITE LEARNING - 1-4 Units
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

ENGR 97 SPECIAL TOPICS IN ENGINEERING – .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in engineering. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Since subject matter varies each time the course is taught, this course is repeatable 3 times for a total of 4 enrollments.

ENGR 98 SPECIAL LAB TOPICS IN ENGINEERING – .5-2 Units (P/NP Option)
Class Hours: 27-108 lab total
This course is designed to give students an opportunity to explore a variety of activities dealing with changing topics/knowledge in engineering. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

ENGR 118 BLUEPRINT AND SPECIFICATION READING (MECHANICAL) - 2 Units (P/NP Option)
Class Hours: 36 lecture total
A beginning blueprint reading class for the student in the metal and mechanical trades. Basic visualization and drawing concepts, including orthographic projection, detailing, sketching and communication skills that are needed for employment, are developed in the class.

ENGR 119 BLUEPRINT AND SPECIFICATION READING (ARCHITECTURAL) - 2 Units (P/NP Option)
Class Hours: 36 lecture total
Designed to provide the student who expects to enter a skilled trade with a working knowledge of architectural and construction drawings and specifications and basic communication skills that will be needed for employment.

ENGR 197 SPECIAL TOPICS IN ENGINEERING – .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in the field of engineering. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for engineering majors; open to anyone with an interest in the topic. Note: This course may be repeated three times for a total of four enrollments.

ENGR 198 SPECIAL LAB TOPICS IN ENGINEERING - .5-2 Units (P/NP Option)
Class Hours: 27-108 lab total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in the field of engineering. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for engineering majors; open to anyone with an interest in the topic. Note: This course may be repeated three times for a total of four enrollments.

ENGLISH (ENGL)

Please note Assessment Testing Policy. English assessment testing is required for entry into the following courses: Basic Skills English classes and ENGL 1A. The College administration will establish test dates in advance of registration each semester. Contact the Assessment Office for information on testing dates. If you think for some reason that your assessment test score does not reflect your English competency, please make an appointment with a counselor to discuss your options.

ENGL 1A COLLEGE COMPOSITION - 4 Units (CAN# ENGL 2) (ENGL SEQ A)
Prerequisite: A grade of C or higher in ENGL 190 or ESL 138, or English Placement Level 6 or higher
Class Hours: 72 lecture total (when offered in the Distance Education format, hours will total 216)
This course develops the reading, critical thinking, and writing skills necessary for academic success, emphasizing expository and argumentative writing as well as research and documentation skills. As a transferable course, it presupposes that students already have a substantial grasp of grammar, syntax, and organization, and that their writing is reasonably free from errors. A research paper is required for successful completion of this course. This course may be offered in a distance learning format.

ENGL 1B LITERATURE AND COMPOSITION - 3 Units (CAN# ENGL 4) (ENGL SEQ A)
Prerequisite: A grade of C or higher in ENGL 1A, or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
Course emphasizes the development of critical thinking and writing skills through close study of the major genres of literature: poetry, drama, short story and novel. Students receive further instruction and practice in analytical writing, developing arguments about literary works and the critical reception of those works. In discussion and writing, students will also examine arguments as such, learning to identify sound as well as fallacious reasoning in critical assessments of literature. This course may be offered in a distance learning format.

ENGL 1C CRITICAL REASONING, READING, AND WRITING - 3 Units
Prerequisite: A grade of C or higher in ENGL 1A, or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
Course focuses on critical thinking skills, close textual analysis, and expository and argumentative writing. Students apply critical thinking skills in reading non-fiction and fiction, and in writing essays of definition, cause/effect analysis, argumentation, refutation, and advocacy. Students will learn to use research strategies in analyzing others' ideas and supporting their own. This course may be offered in a distance learning format.

ENGL 10A WORLD LITERATURE (to 1500) - 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in ENGL 1A, or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course introduces students to some representative masterpieces in world literature beginning with the ancient world and continuing to 1500. A majority of the works will be selected from non-Western literary traditions. The course involves critical analysis of these works within the context of the culture and time in which they were written. Emphasis centers on identifying and analyzing important themes that shape and define the human experience. This course may be offered in a distance learning format.

ENGL 10B WORLD LITERATURE (after 1500) - 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in ENGL 1A, or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course introduces students to some representative masterpieces in world literature beginning with 1500 and continuing to the present. A majority of the works will be selected from non-Western literary traditions. The course involves critical analysis of these works within the context of the culture and time in which they were written. Emphasis centers on identifying and analyzing important themes that shape and define the human experience. ENGL 10A is not a prerequisite to ENGL 10B. This course may be offered in a distance learning format.

ENGL 11A A SURVEY OF AMERICAN LITERATURE-Pre-Colonial to 1860 - 3 Units (P/NP Option) (CAN #ENGL 14) (CAN# ENGL SEQ C)
Prerequisite: A grade of C or higher in ENGL 1A, or an English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
The course involves a study of representative authors in the literary history of the United States from the pre-colonial period to the Civil War. This course may be offered in a distance learning format.

ENGL 11B A SURVEY OF AMERICAN LITERATURE-1860 to Present - 3 Units (P/NP Option) (CAN # ENGL 16) (CAN# ENGL SEQ C)
Prerequisite: A grade of C or higher in ENGL 1A, or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course involves a study of representative authors in the literary history of the United States from the Civil War to the present day. This course may be offered in a distance learning format.

ENGL 12 INTRODUCTION TO SHORT FICTION - 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in ENGL 1A, or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
An introduction to the genre of the short story in English and translation, including the elements of the form: structure, narration, point of view, setting, character, plot, and metaphorical language. This course may be offered in a distance learning format.

ENGL 13A A SURVEY OF ENGLISH LITERATURE (Old English Period through Neoclassicism) - 3 Units (P/NP Option) (CAN# ENGL 8) (CAN# ENGL SEQ B)
Prerequisite: A grade of C or higher in ENGL 1A, or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
ENGL 13A is the first semester of the basic two-semester English Literature survey course commonly offered in the sophomore year at colleges and universities. It involves the intensive study of and reading and writing upon representative masterpieces of the literary history of England from the Anglo-Saxon period to the end of the 18th century. This course may be offered in a distance learning format.

ENGL 13B A SURVEY OF ENGLISH LITERATURE (from the Romantic Period to Present) - 3 Units (P/NP Option) (CAN# ENGL 10) (CAN# ENGL SEQ B)
Prerequisite: A grade of C or higher in ENGL 1A, or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
ENGL 13B is the second part of the basic two-semester English Literature survey course, commonly offered in the sophomore year at colleges and universities. It involves the intensive study of and reading and writing upon representative masterpieces of the literary history of England from the Romantic Period to the present. This course may be offered in a distance learning format.

ENGL 14 A SURVEY OF DRAMA AS LITERATURE - 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in ENGL 1A, or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A course designed to provide the student with an awareness of the origin and development of Western drama through an examination of representative plays from classical Greece to the present. Aesthetic values as well as social, political, and psychological implications expressed through the drama will be examined in order to enhance the student's understanding and appreciation of dramatic literature; therefore, students will be required to watch as well as read plays which are representative of the various movements in western civilization. This course may be offered in a distance learning format.

ENGL 15 INTRODUCTION TO LITERATURE BY AND ABOUT WOMEN - 3 Units
Prerequisite: A grade of C or higher in ENGL 1A, or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A survey of literature by and about women in different periods and countries. Genres studies include stories, diaries and letters, poetry and drama. Emphasis is on the human condition, especially among woman, as expressed in literature. This course may be offered in a distance learning format.

ENGL 16 POETRY - 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in ENGL 1A, or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
An intensive course analyzing the techniques and forms of poetry in English with stress on the genre. Interpretation and appreciation are the primary goals. Emphasis is on extensive reading for pleasure, various types of writing including analytical, responsive and experiential, as well as group experiences in listening. In addition, this course seeks to equip the college literature student to understand literary materials in a new way. The course includes a number of written exercises. This course may be offered in a distance learning format.

ENGL 17 INTRODUCTION TO SHAKESPEARE - 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in ENGL 1A, or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course offers an introduction to the representative works by Shakespeare including the characteristics of the different genres such as comedy, history, and tragedy as well as a study of the sonnets. A particular focus on theatre history and the historical and sociological influences of the Elizabethan/Jacobean era will highlight the study of the dramatic and literary conventions. This course may be offered in a distance learning format.

ENGL 18 AFRICAN AMERICAN LITERATURE - 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 1A or English Placement Level 7
Class Hours: 54 lecture total
This course is primarily a genre study of African American Literature from the colonial period to the present – including oral tradition, poetry, slave narratives, essays, short stories, plays, novels, and music. Included is an examination of the historical, cultural and social forces influencing these works.

ENGL 19 A SURVEY OF THE BIBLE AS LITERATURE - 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in ENGL 1A, or English Placement Level 7
Class Hours: 54 lecture total
A course designed to provide the student with an understanding of the origin and development of the bible canon and its rendering into English. Major Bible books will be examined from the perspectives of content, form, and scholarly criticism. This course may be offered in a distance learning format.

ENGL 20 WORLD MYTHOLOGY - 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in ENGL 1A, or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course introduces the major images and themes of myths from around the world. By analyzing various archetypal patterns found in the sacred stories, narratives, and legends of the great civilizations and tribal cultures, students understand both the uniqueness of each culture's world view and the commonality of human experience. This course may be offered in a distance learning format.

ENGL 24 MULTICULTURAL PERSPECTIVES IN AMERICAN LITERATURE – 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in ENGL 1A, or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course is an introduction to multiethnic literary currents in American literature and will focus on African-American, Asian-American, Hispanic-American, Pacific-Islander, and/or Native-American literature (minimum of two) within "mainstream" American literature. Poetry, essays, short stories, novels, memoirs, and biography will be studied as works of individual artists and from a cultural perspective. An integral part of the course is an understanding of the political/cultural/historical context of the literature. This course stresses critical and analytical thinking, reading, and writing skills. Students from all backgrounds should benefit from the unique insights into American life afforded by these rich and varied traditions. This course may be offered in a distance learning format.

ENGL 25 LINGUISTICS - 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in ENGL 1A, or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
The course is an introduction to the study of language. Course content surveys linguistic concepts of the nature and diversity of language: morphology, syntax, semantics, phonetics, and phonology; language acquisition; social variation, and historical change. This course may be offered in a distance learning format.

ENGL 31 CREATIVE WRITING - 3 Units (P/NP Option) (CAN # ENGL 6)
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher, or ESL 138 or ESL Placement Level 8 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
The student learns the craft and principles of dramatic narrative and poetry through a variety of short assignments. A final project may be written in any field of interest: short story, article, movie/TV script, stage play, or book. Analysis and lecture are presented both for those desiring to write experimentally, and for those interested in the demanding world of publication. This course may be offered in a distance learning format.

ENGL 33 FICTION AND FILM – 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in ENGL 1A, or English Placement Level 7
Class Hours: 54 lecture total
An examination of fiction and film as literary art forms. Course emphasizes critical reading of literature and viewing of film, with comparative, expository, and argumentative writing about those works. Through in-depth analysis of examples from both literature and film, students will become familiar with the major literary conversations in fiction and film, and learn to appraise a work on the basis of literary merit.

ENGL 36 CHILDREN'S LITERATURE - 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in ENGL 1A or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course provides an overview of the origins and developments of children's literature and acquaints the student with literature written for and read by children. In addition to exploring ways of promoting children's development through literature, discussion of critical and theoretical approaches to children's literature will be emphasized. This course may be offered in a distance learning format.

ENGL 61 CRITICAL READING - 3 Units
Prerequisite: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Class Hours: 54 lecture total
The overall emphasis is to ensure reading adequacy that will enable the transfer student to succeed in upper-division academic work at any college or university. This course provides training in assessment and test taking skills, reading speed with comprehension, concentration, reading and study strategies, graphic illustrations, main idea, organizing text information, inference, point of view, critical thinking, and textbook study applications. The student will study and practice the academic skills necessary for success in most fields of study.

ENGL 91 ADVANCED COMPOSITION - 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in ENGL 1A, or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
Advanced instruction and practice in effective writing, with intensive study of the established rhetorical principles. Emphasis is upon excellence in writing and the application of grammar to the improvement of writing. Intended primarily for students who are working toward an elementary teaching credential; meets state certification requirements for an advanced course in writing. This course may be offered in a distance learning format.

ENGL 97 SPECIAL TOPICS IN ENGLISH - .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics and concepts not necessarily covered in other English courses. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Open to anyone with an interest in the topic. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

BASIC SKILLS

ENGL 129 GRAMMAR REVIEW 1: CORRECT AND EFFECTIVE SENTENCES - 1.5 Units (P/NP Option)
Class Hours: 27 lecture total (when offered in the Distance Education format, hours will total 81)
Emphasizes structure, variety, effectiveness and style of the English sentence. Includes methods of proofreading, the rules of punctuation, and techniques of revision. Includes comparison with sentence structure of other languages such as Spanish. This course may be offered in a distance learning format.

ENGL 161 EFFECTIVE READING – 2 Units
Prerequisite: A grade of C or higher in ENGL 280, or English Placement Level 4 or higher
Class Hours: 36 lecture total
The course is designed to provide training in AA degree level reading skills. This class will focus on increasing reading speed and comprehension. Instruction and practice will be provided for developing effective study skills, efficient and analytical reading skills, vocabulary improvement, the ability to identify the main idea, determining supporting details and organizational patterns, knowledge of textbook learning, test-taking strategies, and critical thinking. The course includes skills training for standardized admission tests such as SAT/ACT and ASVAB, with emphasis on reading comprehension, analogies, sentence completion, math reading problems and basic writing skills.

ENGL 190 READING AND WRITING II - 4 Units
Prerequisite: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 72 lecture total (when offered in the Distance Education format, hours will total 216)
This course is designed to improve critical reading skills and to increase writing abilities so that students are able read a text closely and produce organized, well-supported, and generally smoothly written essays. The course places emphasis on writing both as a process and as a presentable product. In addition, the course introduces students to academic research and the use of source materials in writing. This course may be offered in a distance learning format.

ENGL 191 WRITING IN THE WORKPLACE: GRAMMAR IN CONTEXT AND BASIC ESSAY STRUCTURE - 2 Units
Prerequisite: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 36 lecture total
ENGL 191 is designed as the first in a module series specifically for those students who desire direct applications of writing skills to the workplace environment with a special emphasis on basic essay structure and the correct and effective use of grammar and mechanics required in vocational fields. Emphasis will be on both correctness and the writing process. If passed with a grade of "C" or higher, this course can be used in combination with ENGL 192, ENGL 193 and/or ENGL 194 (for a total of fours units) to meet the A.A. General Education Requirement and admit a student into ENGL 1A. The flexible scheduling of this course and the module approach allows students more freedom in choosing both their schedules and their curriculum.

ENGL 192 WRITING IN THE WORKPLACE: NARRATION – 1 Unit
Prerequisite: A grade of C or higher in ENGL 191
Class Hours: 18 lecture total
ENGL 192 is designed specifically for those students who have completed ENGL 191 and who desire direct applications of writing skills to the workplace environment with a special emphasis on narrative writing skills utilized in vocational fields. Emphasis will be on both correctness and the writing process. If passed with a grade of "C" or higher, this course can be used in combination with ENGL 191 and either ENGL 193 or ENGL 194 (for a total of four units) to meet the A.A. General Education Requirement and admit a student into ENGL 1A. The flexible scheduling of this course, along with its module approach, allows students more freedom in choosing both their schedules and their curriculum.

ENGL 193 WRITING IN THE WORKPLACE: PROCESS AND REPORT WRITING - 1 Unit
Prerequisite: A grade of C or higher in ENGL 191
Class Hours: 18 lecture total
ENGL 193 is designed specifically for those students who have completed ENGL 191 and who desire direct applications of writing skills to the workplace environment with a special emphasis on process and report writing skills utilized in vocational fields. Emphasis will be on both correctness and the writing process. If passed with a grade of "C" or higher, this course can be used in combination with ENGL 191 and either ENGL 192 or ENGL 194 (for a total of four units) to meet the A.A. General Education Requirement and admit a student into ENGL 1A. The flexible scheduling of this course, along with its module approach, allows students more freedom in choosing both their schedules and their curriculum.

ENGL 194 WRITING IN THE WORKPLACE: COMPARISON/ CONTRAST AND BASIC ARGUMENTATION - 1 Unit
Prerequisite: A grade of C or higher in ENGL 191
Class Hours: 18 lecture total
ENGL 194 is designed specifically for those students who have completed ENGL 191 and who desire direct applications of writing skills to the workplace environment with a special emphasis on comparison/contrast and argumentative writing skills utilized in vocational fields. Emphasis will be on both correctness and the writing process. If passed with a grade of "C" or higher, this course can be used in combination with ENGL 191 and either ENGL 192 or ENGL 193 (for a total of four units) to meet the A.A. General Education Requirement and admit a student into ENGL 1A. The flexible scheduling of this course, along with its module approach, allows students more freedom in choosing both their schedules and their curriculum.

ENGL 248 BASIC READING - 1 Unit (P/NP Only)
Class Hours: 54 lab total
A course designed to help students reading below the fourth grade level improve their reading skills. The course will provide one-on-one tutoring in basic reading skills including: symbol, sound and letter relationships; phonics; short and long vowel sounds; consonant blends; letter formation; basic capitalization and punctuation rules; reading for details; and sequencing. Based on individual assessments, programs of study will be written for each student. Independent work skills are necessary to complete the program.

ENGL 250 ELEMENTS OF READING 250 - 1-3 Units
Advisory: A grade of "credit" in ENGL 248 (for native speakers) or ENGL 249 (for ESL students) or English Placement Level 1 or higher
Class Hours: 12-36 lecture/18-54 lab total
A course designed to help students improve their reading. Students will be evaluated in class to determine strong and weak skills areas. An individualized program will cover decoding, sight vocabulary, writing, and comprehension at the literal level. Materials used will be at the fourth and fifth grade levels. The student must be capable of working independently and in small groups. Enrollment in sequential courses is based on measurable progress. Note: This course may be repeated three times for a total of four enrollments since course content varies and skills are enhanced by supervised repetition and practice.

ENGL 260 ELEMENTS OF READING 260 - 1-3 Units
Advisory: A grade of C or higher ENGL 250 or English Placement Level 2 or higher
Class Hours: 12-36 lecture/18-54 lab total
A course constructed to help students enhance personal reading and work-related language skills. Students will be evaluated in class to determine strong and weak skill areas. An individualized program will include word attack strategies, word usage, clear writing with correct spelling and usage, critical thinking opportunities, and interpretive comprehension. Materials at the sixth, seventh, and eighth grade levels will be used. The student must be capable of working independently and in small groups. Enrollment in sequential courses is based on measurable progress. Note: This course may be repeated three times for a total of four enrollments since course content varies and skills are enhanced by supervised repetition and practice.

ENGL 270 ELEMENTS OF READING 270 - 1-3 Units
Advisory: A grade of C or higher in ENGL 260 or English Placement Level 3 or higher
Class Hours: 12-36 lecture/18-54 lab total
A course intended to help vocational and transfer oriented students to augment academic reading and writing ability to successfully compete in college-level courses. Students will be evaluated in class to determine strong and weak skill areas. An individualized program will contain vocabulary nuance specific to academic disciplines, the capacity to write cogent, clear, precise prose with correct usage including grammar and spelling, plus comprehension focused on in-depth analysis and abstract reasoning. Materials at the ninth and tenth grade levels will be used. The student must be capable of working independently and in small groups. Enrollment in sequential courses is based on measurable progress. Note: This course may be repeated one time for a total of two enrollments since course content varies and skills are enhanced by supervised repetition and practice.

ENGL 280 READING AND WRITING I - 4 Units
Prerequisite: A grade of C or higher in ENGL 270, or English Placement Level 4 or higher
Class Hours: 72 lecture total (This course may offered as partial Internet and hours will total 54 lecture and 54 Internet)
This course builds towards college-level reading and writing skills. The reading component emphasizes such skills as previewing, locating main ideas and supporting evidence, and drawing sound inferences. The writing component consists primarily of narrative, reading responses, and summaries. The course aims to increase reading and writing fluency, with some attention to correctness and the ability to develop ideas in an organized fashion in various kinds of writing. This course may be offered in a partial distance learning format.

ENGL 297 SPECIAL TOPICS IN READING - .5-3 Units (P/NP Option)
Class Hours: 9-54 lecture total
This course is designed to allow experimental approaches to helping students who need help in their reading and writing skills. Methods and content would not duplicate any existing courses.
Note: Since subject matter varies each time the course is taught, the course is repeatable three times for a total of four enrollments.

ENGL 348 ADULT LITERACY - 0 Units
Class Hours: 54-108 lab total
A course designed to help students reading below the fourth grade level improve their reading skills. The course will provide one-on-one tutoring in basic reading skills including: symbol, sound and letter relationships; phonics; short and long vowel sounds; consonant blends; letter formation; basic capitalization and punctuation rules; reading for details; and sequencing. Based on individual assessments, programs of study will be written for each student. Independent work skills are necessary to complete the program.

ENGL 382 READING AND WRITING WORKSHOP - 0 Units
Class Hours: 1-200 lab total
Students receive individualized tutoring to address problems they are having either in written expression or in reading.

ENGLISH AS A SECOND LANGUAGE (ESL)

Información General Sobre Nuestros Programas
El Colegio de Shasta sirve a su comunidad con programas educativos y culturales que amplian las experiencias de los estudiantes, desarrollan sus habilidades potenciales y los capacitan para ser productivos y para truinfar en la sociedad. A todos los estudiantes se les ofrece entrada a nuestros programas y a las oportunidades. El Colegio aspira a satisfacer las necesidades individuales, a mantener las normas académicas apropiadas, a proteger la libertad académica y personal, y a promover oportunidades sin discriminación.

Para obtener prioridad de matrícula en el siguiente semestre, complete el formulario expresando sus deseos de matricularse. Con mucha anticipación se publica un catálogo que incluye todas las clases ofrecidas en cada semestre escolar. Hay consejeros en cada periodo de matriculación para ayudarle al alumno a planear su programa escolar.

El Programa de "ESL" (Inglés como Segunda Lengua) se les ofrece a los estudiantes extranjeros y a los residentes que no hablan inglés. Hay varios niveles de cursos en ESL. Los administradores y los profesores del programa le podrán ayudar a seleccionar los cursos más beneficiales para usted. Los cursos se ofrecen en las días y noches. Si desea más información visite la Oficina #206 o el Aula #210 llame al número 242-7711.

ESL 136 ORAL COMMUNICATION FOR COLLEGE SUCCESS – 4 Units (P/NP Option)
Advisory: A grade of C or higher in ESL 236 or ESL Placement Level 7 or higher
Class Hours: 72 lecture total
This is a course designed to assist non-native speakers of English build both fluency and accuracy in their listening and speaking skills. Activities integrating listening, speaking and pronunciation provide relevant practice necessary for business academics.

ESL 137 COMPOSITION I – 6 Units (P/NP Option)
Prerequisite: A grade of C or higher in ESL 236 or ESL Placement Level 7 or higher
Class Hours: 90 lecture/54 lab total
This is an academic course for non-native speakers of English designed to develop writing fluency. Emphasis is on writing short compositions, developing process writing skills and learning common methods of organization. This course includes an intensive review of English grammatical patterns. Development of these skills enhances students' fluency and proficiency in college-level writing.

ESL 138 COMPOSITION II – 6 Units (P/NP Option)
Advisory: A grade of C or higher in ESL 137 or ESL Placement Level 8 or higher
Class Hours: 90 lecture/54 lab total
This is the second of two academic ESL writing courses designed to develop college level writing skills. Emphasis is on writing longer compositions including expository, analytic and argumentative essays. The course will also cover sentence structure as well as advanced grammatical patterns as they relate to refining writing skills.

ESL 220 ORAL COMMUNICATION (formerly ENGL 220) - 3 Units (P/NP Option)
Class Hours: 36 lecture/54 lab total
Designed for the upper beginning to upper intermediate student of English as a Second Language. Major emphasis will be on refining and expanding the listening and speaking skills, aural-oral coping skills, and oral critical thinking and expression skills, which are necessary to function in routine social interactions, beginning level jobs, and/or further academic work.

ESL 229 FAMILY LITERACY (formerly ENGL 229) – 2 Units (P/NP Only)
Class Hours: 108 lab total
ESL 229 will provide beginning level non-English speaking parents an opportunity to acquire English and English literacy skills while their children attend simultaneous language arts classes in an after school program, held at a local elementary school. A unique element of the Family Literacy class is that parents and children will participate together in developing literacy skills intermittently throughout the semester. The use of both the native language and English will be encouraged. Note: This course may be repeated 1 time for a total of 2 enrollments since course content varies and skills are enhanced by supervised repetition and practice.

ESL 230 BEGINNING (formerly ENGL 230) - 4 Units (P/NP Only)
Class Hours: 18 lecture/162 lab total
A course designed for the absolute beginner with zero competency in English. This class introduces aural-oral communication.

ESL 231 BEGINNING MID (formerly ENGL 231) - 4 Units (P/NP Only)
Advisory: A grade of "credit" in ESL 230, or qualifying score on ESL Assessment Exam
Class Hours: 18 lecture/162 lab total
This course stresses the development of oral language skills and basic vocabulary related to daily needs.

ESL 232 BEGINNING HIGH (formerly ENGL 232) - 4 Units (P/NP Only)
Advisory: A grade of "credit" in ESL 231, or qualifying score on ESL Assessment Exam
Class Hours: 18 lecture/162 lab total
This course builds on the basic language skills from ESL 231. Language skills are expanded in communicative contexts. Emphasis is placed on development of "social English."

ESL 233 INTERMEDIATE (formerly ENGL 233) - 4 Units (P/NP Option)
Advisory: A grade of "credit" in ESL 232, or qualifying score on ESL Assessment Exam
Class Hours: 18 lecture/162 lab total
This course integrates basic language skills. Students at this level build the communicative ability to function in practical areas of daily life. Introduces cultural knowledge and intermediate grammatical structures.

ESL 234 INTERMEDIATE HIGH (formerly ENGL 234) - 4 Units (P/NP Option)
Advisory: A grade of C or higher in ESL 233, or ESL Placement Level 4 or higher
Class Hours: 18 lecture/162 lab total
Intermediate grammatical structures are reinforced. Cultural competency is expanded. Students develop ability to speak and write with some degree of fluency and accuracy.

ESL 235 ADVANCED (formerly ENGL 235) - 5 Units (P/NP Option)
Advisory: A grade of C or higher in ESL 234, or ESL Placement Level 5 or higher
Class Hours: 36 lecture/162 lab total
This course reviews and reinforces language skills learned in previous ESL levels. Students will expand their general ability to communicate in oral and written English beyond the familiar.

ESL 236 ADVANCED HIGH (formerly ENGL 236) - 5 Units (P/NP Option)
Advisory: A grade of C or higher in ESL 235, or ESL Placement Level 6 or higher
Class Hours: 54 lecture/126 lab total
Advanced High, ESL 136, will provide students the opportunity to refine and expand their knowledge of the various aspects of language so that upon completion of the course, students will be able to communicate orally and in writing with a greater degree of accuracy and fluency. The course will stress the development of reading and writing skills necessary to meet the needs of daily living as well as to set the basic foundation for further academic study. Note: This course may be repeated 1 time for a total of 2 enrollments since course content varies and skills are enhanced by supervised repetition and practice.

ESL 247 ENGLISH AS A SECOND LANGUAGE VOCATIONAL MATH (formerly ENGL 247) - 1 Unit (P/NP Only)
Class Hours: 54 lab total
A course designed to help ESL students develop math skills needed for entry level employment. The course will provide one-on-one tutoring in basic vocational math skills including: basic computation of whole numbers and fractions, order of operations, decimals and percents; time, lineal, weight and volume measurement (U.S. standard and metric), basic money skills graphs and calculator use. Based on individual assessments, programs of study will be written for each student. Delivery will be multi-sensory with direct teaching and self exploration. Independent work skills are necessary to complete the study program. No math credit will be given for this course.

ESL 249 ENGLISH AS A SECOND LANGUAGE READING LAB (formerly ENGL 249) – 1 Unit (P/NP Only)
Class Hours: 54 lab total
A course designed to help students with problems related to second language acquisition to improve their reading, writing, spelling and vocabulary skills. The course will provide one-on-one tutoring in reading related skills including symbol/sound relationships, sight word and spelling, and understanding at the concrete level. Based on individual assessments, programs of study will be developed for each student. Delivery will be multi-sensory with direct teaching along with individual exploration. Independent work skills are necessary to complete the study program.

ESL 378 AMERICAN CITIZENSHIP - 0 Units
Advisory: A grade of C or higher in ESL 234 or ESL Placement Level 4 or higher
Class Hours: 54 lab total
This is a course designed to prepare prospective citizens for citizenship. Class activities will focus on U.S. history, government, basic geography and American culture and customs as it relates to the knowledge required to become an American citizen. While improving their English language skills, students will learn how to complete naturalization forms and prepare for the written and oral test for citizenship.

ESL 385 LITERACY (formerly ENGL 385) - 0 Units
Class Hours: 54-216 lab total
This course emphasizes aural-oral language skills and basic literacy.

ENVIRONMENTAL RESOURCES

See AG, AGMA, AGNR, AGPS and CONS for course listings

FAMILY STUDIES AND SERVICES (FSS)

FSS 10 INTRODUCTION TO HUMAN SERVICES - 3 Units
Class Hours: 54 lecture total
This course is an introduction to the Human Services field of study. It provides information to students who are interested in careers in the fields of welfare, mental health, adult/child protective services, vocational rehabilitation, social services, employment and training, education, child care services job development and others. Historical and theoretical perspectives of human services will be covered. The significance of social policy and prevention will be stressed throughout the course. Workplace attitudes, values, ethics and professionalism will also be covered.

FSS 12 STANDARDS AND PRACTICES IN HUMAN SERVICES - 3 Units
Advisory: A grade of C or higher in FSS 10
Class Hours: 54 lecture total
This course explores the theoretical perspectives and professional standards involve din Human Services – with particular emphasis on Social Work Practices. Students will be introduced to the practices of engagement, assessment, intervention, documentation and conflict resolution while consistently integrating these with the systems framework and strengths perspective. Professional and personal ethics will be stressed throughout the course. Multicultural competence and policy development will also be covered.

FSS 16 MARRIAGE AND FAMILY (formerly HEOC 16) – 3 Units (CAN# FCS 12)
Class Hours: 54 lecture total
An introductory course to marriage and family. Topics studied include dating, courtship, marriage, family life, dual career marriages, divorce, single parenting, domestic violence and other contemporary issues.

FSS 18 ADULTHOOD AND AGING – 3 Units (P/NP Option)
Class Hours: 54 lecture total
A study of the developmental changes that occur during early, middle and late adulthood, as well as the continuities that exist within individuals throughout this time span. The physical, cognitive and psychosocial domains will be explored with a particular emphasis upon patterns that lead to successful aging within the societal context.

FSS 25 NUTRITION (formerly HOEC 25) - 3 Units (CAN# FCS 2)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A study of the science of food, the nutrients and other substances therein, their actions, interactions and balance in relation to health and disease. The class emphasizes the positive contributions of nutrition to life and health. This course may be offered in a distance learning format.

FSS 26 NUTRITION THROUGH THE LIFE SPAN (formerly HOEC 26) - 3 Units
Class Hours: 54 lecture total
A course emphasizing the basic principles of nutrition as they apply to different age groups throughout the life cycle. The special concerns and nutritional needs of pregnancy and lactation, infancy and the preschool years, childhood and adolescence, adulthood and aging will be addressed. The course will also emphasize meal planning for the various stages of life utilizing current dietary recommendations and the most current revisions of nutrition labels.

FSS 27 NUTRITION AND DISEASE - 2 Units
Prerequisite: A grade of C or higher in FSS 25
Class Hours: 36 lecture total
A comprehensive therapeutic study of the relationship between a patient, their diet and optimum health. Physiological conditions that necessitate dietary modifications in the clinical setting will be stressed.

FSS 46 PERSONAL FINANCE (formerly HOEC 46) - 3 Units
Class Hours: 54 lecture total
Designed to provide students with the information and decision-making tools needed for planning and implementing a successful lifelong financial plan. Topics will include budgeting, debt management, savings and other investment vehicles, taxes, insurance, and retirement planning.

FSS 60 LIFE MANAGEMENT (formerly HOEC 60) – 3 Units (P/NP Option)
Class Hours: 54 lecture total
This course provides individuals with skills for understanding and using internal and external resources to function effectively in our present and future society. Major topics include: effects of cultural forces and future trends on values, standards and goals; skills for decision-making, time, energy, stress, and conflict management; and techniques for improving self-understanding and interpersonal relationships.

FSS 94 FAMILY STUDIES AND SERVICES WORKSITE LEARNING - 1-4 Units
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

FSS 95 WORKSITE INTEGRATION - 1 Unit
Advisory: Previous or concurrent enrollment in FSS 94
Class Hours: 18 lecture total
This course integrates Social Work Theory into field work. Topics covered include student role in worksite learning, understanding clients, confidentiality issues, preparing a client needs assessment, professional boundaries and agency policies.

FSS 127 A PRACTICAL APPROACH TO NUTRITION - 3 Units
Note: Students will be required to go on local field trips for a total of 18 hours. Students must provide transportation.
Class Hours: 54 lecture total
Course is designed for the non-major who will study contemporary issues and applications of nutrition. The emphasis will be on a problem-solving approach to dietary planning and food selection as it relates to fitness and optimal health. It will help people focus on their own eating practices within the framework of the dietary guidelines for Americans.

FSS 197 SPECIAL TOPICS IN FAMILY STUDIES (formerly HOEC 197) - .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in family studies. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

FIRE TECHNOLOGY (FIRS)

FIRS 70 INTRODUCTION TO FIRE TECHNOLOGY - 3 Units
Class Hours: 54 lecture total
Provides an introduction to fire protection; career opportunities and related fields; philosophy and history of fire protection; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

FIRS 71 FIRE BEHAVIOR AND COMBUSTION - 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course of study presents theory and fundamentals of how and why fires start, spread, and are controlled; an in-depth study of fire chemistry and physics; fire characteristics of materials; extinguishing agents; and fire control techniques. This course may be offered in a distance learning format.

FIRS 72 FIRE PREVENTION TECHNOLOGY - 3 Units
Class Hours: 54 lecture total
Provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationships of fire prevention with built-in fire protection systems, fire investigation and fire safety education.

FIRS 73 WILDLAND FIREFIGHTER I ACADEMY - 4 Units (P/NP Only)
Class Hours: 36 lecture/90 lab total
Review of fire behavior, equipment, and apparatus; cover basic wildland firefighting tactics and strategy, methods of attack, and pre-planning fire problems. Course meets or exceeds the minimum requirements for entry-level firefighter positions in the California Department of Forestry (CDF) and the United States Forest Service (USFS).
Note: To be considered for seasonal Firefighter positions by CDF, you must also hold additional certificates. Students should contact CALFIRE for additional information.

FIRS 74 FIRE PROTECTION EQUIPMENT AND SYSTEMS – 3 Units (P/NP Option)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
Provides information relating to the features of design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection and portable fire extinguishers. This course may be offered in a distance learning format.

FIRS 76 FIRE HYDRAULICS - 3 Units (P/NP Option)
Class Hours: 54 lecture/4 lab total
Review of basic mathematics, hydraulic laws and formulas as applied to the fire service, application of formulas and mental calculation to hydraulic problems, underwriters' requirements for pumps recommended.

FIRS 79 FUNDAMENTALS OF PERSONAL FIRE SAFETY – 3 Units (P/NP Option)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course will introduce the student to fundamental issues relating to fire fighting safety and survival. Students will evaluate case studies in which firefighters have been killed or injured. In addition, each student will be required to give an oral presentation based on an analysis of a "near miss" fatal fire/rescue scenario. This course may be offered in a distance learning format.

FIRS 85 FIRE COMMAND IA (formerly FIRS 85A) – 2 Units (P/NP Option)
Class Hours: 40 lecture total
This course provides an in-depth analysis of the principles of fire command and fire control through utilization of personnel, equipment, and extinguishing agents on the fire ground.

FIRS 86 BUILDING CONSTRUCTION FOR FIRE PROTECTION - 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course is the study of the components of building construction that relate to fire safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations, and operating at fires. The development and evolution of building and fire codes will be studied in relationship to past fires in residential, commercial, and industrial occupancies. This course may be offered in a distance learning format.

FIRS 87 FIRE COMMAND IB (formerly FIRS 85B) – 2 Units (P/NP Only)
Class Hours: 40 lecture total
This course covers company and multi-company fire command issues including wildland fires, hazardous materials incidents, and major medical incidents.

FIRS 94 FIREFIGHTER TRAINEE WORKSITE LEARNING - 1-4 Units
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

FIRS 100 BASIC FIRE COMPANY OPERATIONS - 2 Units (P/NP Option)
Class Hours: 18 lecture/54 lab total
To provide the student with first hand knowledge of actual fire conditions. Student will learn terminology used in the field, and how to work in the chain of command under emergency conditions, company procedures, shift routine, and engine company evolutions. Note: This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.

FIRS 101 FIRE TECHNOLOGY CAREER PLACEMENT - 1 Unit (P/NP Option)
Class Hours: 54 lab total
Designed to assist the student in the final semester of vocational program to learn interview techniques, to develop an employment portfolio, and to interview with several potential employers with the express purpose of assisting the student to obtain the best employment upon graduation.

FIRS 102 APPRENTICESHIP ACADEMY - 1.5 Units (P/NP Option)
Class Hours: 18 lecture/27 lab total
This course will cover hazardous building materials/construction methods, rescue strategies, ventilation techniques, pre-plan methods, cautions regarding lab fires and instructional techniques for new personnel. Note: This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.

FIRS 104 FIREFIGHTER I ACADEMY - 21 Units
Note: Based on scheduling and instructor availability issues, this course may meet four or five days a week with occasional night classes, and additional weekend days may be required. Preset/scheduled dates and times may be shifted as needed to accommodate facility usage, equipment demands, weather, skills development needs and instructor availability. When dates and times are shifted, the total amount of required class time will not differ from those hours listed on the first class handout.
Class Hours: 234 lecture/450 lab total
This course exceeds the minimum requirements established by the California State Fire Marshal's Office for State Certification as a Firefighter I. This academy is an accredited regional academy approved by the California State Board of Fire Service. Final certification as a Firefighter I is verified by the State Fire Marshal's Office after the student completes the Academy, works as a Firefighter for one year and has their final paperwork signed by the Fire Chief of the Department where they have worked.

FIRS 105 DRIVER/OPERATOR 1A: EMERGENCY VEHICLE OPERATIONS – 1.5 Units
Note: Student must provide a fire engine for the driving portions of the course. Student must possess a valid Class B California Driver's License or Learner's Permit.
Class Hours: 18 lecture/27 lab total
Designed to provide the student with information on driver techniques for emergency vehicles and techniques of basic inspection and maintenance for emergency vehicles, including actual driving exercises under simulated emergency conditions.

FIRS 106 DRIVER/OPERATOR 1B: PUMP OPERATIONS – 1.5 Units
Note: Student must provide a fire engine for the driving portion of the course. Student must possess a valid Class B California Driver's License or Learner's Permit.
Class Hours: 18 lecture/27 lab total
Course provides the student with the information, theory, methods and techniques for operating fire service pumps, including: types of pumps, engine and pump gauges maintenance, unsafe pumping conditions, pressure relief devices, cooling systems, water supplies, drafting field hydraulics, and pumping operations.

FIRS 108 FIREFIGHTER II ACADEMY - 5 Units
Note #1: Students will have to provide their own safety equipment, which meets NFPA standards. Equipment will include: helmet, gloves, structural fire fighting coat and pants, boots, eye protection, etc.
Note #2: To receive a California State Fire Marshal's Certification, students must have completed FIRS 104 prior to enrollment in FIRS 108.
Class Hours: 72 lecture/54 lab total
An extended format of the Firefighter I course with advanced skills. Designed to provide the Firefighter I with both manipulative and technical skills. Course approved by the California State Board of Fire Services and California State Fire Marshal's Office. Upon successful completion of course work, Firefighter II certification will be granted. Note: This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.

FIRS 113 FIRE CREW SUPERVISOR - 1 Unit (P/NP Option)
Class Hours: 18 lecture total
The course is designed to complement existing fire crew captain training by presenting techniques for supervision of inmates, wards, and residents; conducting investigations; effective report writing; and understanding the legal rights of inmates, wards, and residents. The practical application of these supervision skills will be emphasized using simulated training experiences. Note: This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.

FIRS 116 ENGINE ACADEMY - 3 Units (P/NP Option)
Note: Students must have completed the following course prior to enrollment in FIRS 116 in order to receive a USDA certification; Crew Boss S-230 114, U.S. Forest Operator's Permit for Engine Operator F-5.
Class Hours: 36 lecture/54 lab total
A course designed to provide classroom training, field familiarization, and drills of all water-use and related equipment used in wildland fire suppression. The student will obtain information, practical experience and a working knowledge of all water-use and related equipment used in wildland fire suppression, fire safety suppression tactics, engine company operations standards. A USDA certificate of training will be issued upon successful completion of this course.

FIRS 118 INTRODUCTION TO WILDLAND FIRE FIGHTING – 1.5 Units
Class Hours: 18 lecture/27 lab total
This course meets requirements in the natural resources and fire science programs. A review of fire chemistry, equipment, and manpower, basic fire fighting strategy, methods of attack, pre-planning fire problems, and fire line safety are included in the course. A.U.S. Forest Service USDA Certificate of Training (Basic Firefighter's Training) will be issued after satisfactory completion of this course. Approximately 50 percent of labs will be in the field.

FIRS 119 PREPARING FOR INCIDENT COMMAND – 1 Unit (P/NP Option)
Note: This course is designed for the volunteer firefighter.
Class Hours: 18 lecture total
This course deals with the preparation phase of commanding an emergency incident. Subjects covered are: Firefighters Survival, Fire Behavior, Fire Flow and Communications. This course is designed for the professional firefighter.

FIRS 120 INCIDENT COMMAND SYSTEM ICS-200 - .5 Unit (P/NP Option)
Class Hours: 12 lecture total
Designed to introduce firefighters to the Incident Command System. Emphasis will be on system design principles, components of the system, positional responsibilities, and the common responsibilities of personnel assigned to the organization. (This course is a prerequisite to further positional training under the Incident Command System).

FIRS 123 DIVISION/GROUP SUPERVISOR (I-339) - 2 Units
Class Hours: 40 lecture total
This course covers training that is needed by staff to perform the position of Division/Group Supervisor during an emergency situation. The course will teach management skills within the framework of the Incident Command System. Note: This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.

FIRS 124 FIRE FIGHTING IN THE I-ZONE - 2 Units (P/NP Option)
Class Hours: 40 lecture total
This course is designed to meet the training needs to initial and extended attack incident commanders and company officers confronting wildland fires that threaten life, property and improvements. This course is designed for professional firefighters.

FIRS 131 HAZARDOUS MATERIALS TECHNICIAN IA – 2.5 Units (P/NP Option)
Class Hours: 45 lecture total
An intense introduction to the nature and behavior of inorganic and organic chemicals. This course examines the physical and chemical properties of matter, its atomic structure, salts and non-salts, hydrocarbons and hydrocarbon derivatives, the forms of energy, flammable and combustible liquids, cryogenics, and the combustion process. Various laws of chemistry are discussed as they apply to organic compounds, flammable liquids and gases and other types of hazardous materials. Module 1 of 4 of the Haz-Mat Technician certification series. Note: To receive a Calif. State Fire Marshal's Office (CSFMO) Certification or a Calif. Specialized Training Institute (CSTI) Certification, the student is strongly encouraged to take these courses in the following sequence: Hazmat Operations followed by FIRS 131, 132, 133, and 134 in that order. Students who want to receive CSFM or CSTI Certification will be required to take a supplemental certification test and pay a certification fee to the CSFMO or CSTI.

FIRS 132 HAZARDOUS MATERIALS TECHNICIAN 1B – 2.5 Units (P/NP Option)
Class Hours: 45 lecture total
An application of the information covered in FIRS 131 Hazardous Materials Technician IA, including the chemistry and hazards of various materials, chemicals incompatibilities, and the products of combustion. Provides the technical foundation for specific operational strategies, field monitoring and detection devices with an emphasis placed on the safety associated with working around chemicals. Module 2 of 4 Haz-Mat Technician certification series. CSTI certification fees and materials fees will be charged. Note: To receive a California State Fire Marshal's Office (CSFMO) Certification or a California Specialized Training Institute (CSTI) Certification the student is strongly encouraged to take these courses in the following sequence: Hazmat Operations followed by FIRS 131, 132, 133, and 134 in that order. Students who want to receive CSFMO or CSTI Certification will be required to take a supplemental certification test and pay a certification fee to the CSFMO or CSTI.

FIRS 133 HAZARDOUS MATERIALS TECHNICIAN 1C – 2.5 Units (P/NP Option)
Class Hours: 45 lecture total
A study of the legal, organizational, technical, and practical aspects of response to hazardous materials emergencies including the laws and regulations related to hazardous materials, the use of the Incident Command System, and protective actions, clothing, and equipment. Examines the Hazardous Materials Group I depth and the positions are exercised in a practical evaluation scenario. Module 3 of 4 of Haz-Mat Technician certification series. CSTI certification fees and materials fees will be charged. Course meets CSFM certification requirements and is graded Credit/No Credit. Note: To receive a California State Fire Marshal's Office (CSFMO) Certification or a California Specialized Training Institute (CSTI) Certification the student is strongly encouraged to take these courses in the following sequence: Hazmat Operations followed by FIRS 131, 132, 133, and 134 in that order. Students who want to receive CSFMO or CSTI Certification will be required to take a supplemental certification test and pay a certification fee to the CSFMO or CSTI.

FIRS 134 HAZARDOUS MATERIALS TECHNICIAN 1D – 1.5 Units (P/NP Option)
Class Hours: 18 lecture/27 lab total
Hands-on training in tactical field operations with various tools and specialized equipment involving the collection of evidence, containment methods, and techniques. Methods for identifying hazardous materials transported by rail car and highway motor vehicles are examined as well as clandestine drug labs, pipelines, and fixed facilities. Module 4 of 4 of Haz-Mat Technician certification series. Note: To receive a California State Fire Marshal's Office (CSFMO) Certification or a California Specialized Training Institute (CSTI) Certification the student is strongly encouraged to take these courses in the following sequence: Hazmat Operations followed by FIRS 131, 132, 133, and 134 in that order. Students who want to receive CSFMO or CSTI Certification will be required to take a supplemental certification test and pay a certification fee to the CSFMO or CSTI.

FIRS 135 INTERMEDIATE INCIDENT COMMAND SYSTEM: FOR EXPANDING INCIDENTS, I 300 – 1.5 Units (P/NP Option)
Class Hours: 27 lecture total
A course of study describing the responsibilities of the organizational elements within each section of the ICS, staffing considerations, and reporting relationships. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Div. or at the National Interagency Fire Center Web Site (NIFC.gov).

FIRS 136 ADVANCED INCIDENT COMMAND SYSTEM I-400 - 1 Unit (P/NP Option)
Class Hours: 18 lecture total
A course of study that presents Incident Command System relationships and duties of Command Staff members, Agency Representatives, and activation of the Command and General Staff positions. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FIRS 139 HAZMAT FIRST RESPONDER OPERATIONS-LEVEL REFRESHER - .5 Unit (P/NP Option)
Limitation on Enrollment: Any OSHA approved HAZMAT operations course
Class Hours: 9 lecture total
This course is designed for students who are currently trained to the Hazardous Materials, First Responder, Operations-level. Students will complete mandated annual refresher training of sufficient content and duration to maintain competencies at the First Responder, Operational level.

FIRS 140 JUVENILE FIRESETTER - 1 Unit (P/NP Option)
Class Hours: 18 lecture total
This course will focus on psychodynamics and treatment options, interviewing techniques, legal issues, community resources and networking concerning juvenile fire setters. The target audience for this class is fire service personnel, burn care professionals, mental health counselors, RNs, social workers, psychologists, psychiatrists, judicial system personnel and other health care professionals. Note: This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.

FIRS 145 LOW ANGLE RESCUE - .5 Unit (P/NP Option)
Class Hours: 9 lecture/9 lab total
A course designed to train firefighters and emergency medical personnel in low angle rescue techniques. Students will learn about equipment, identification, and care. Note: Students will have to provide their own safety equipment which meets NFPA standards. Equipment will include helmet, gloves, structural fire fighting coat and pants, boots, eye protection, etc.

FIRS 146 STANDARD FOR SURVIVAL - 1 Unit (P/NP Option)
Class Hours: 18 lecture total
This course examines significant areas of firefighter fatalities and injuries associated with emergency and non-emergency situations. The course addresses causes of fatalities and injuries, and methods to implement recommended solutions. This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.

FIRS 147 CONFINED SPACE AWARENESS AND RESCUE - .5 Unit (P/NP Option)
Class Hours: 9 lecture total
This introductory level training will familiarize public safety personnel with codes and laws impacting confined space rescues, define terms, identify hazards, and prepare them for operational level training. This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.

FIRS 148 RESCUE SYSTEMS I – 1.5 Units
Note: Students are required to provide personal safety equipment at a significant cost to the student. This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.
Class Hours: 18 lecture/27 lab total
A course designed to train firefighters, in paid or volunteer fire departments and emergency medical personnel, in vertical rescue techniques. Students will learn about equipment, identification, and care, applying techniques, belaying and raising and lowering the rescue basket, and safety. This course is designed to train students for vertical or high angle or rope rescue situations. Students may be required to train at heights of up to 200' above ground.

FIRS 149 AUTO EXTRICATION - .5 Unit (P/NP Only)
Note: Student should be a member of fire or rescue service or currently enrolled in the Fire Technology Program.
Class Hours: 9 lecture/9 lab total
To introduce principles of Auto extrication; use of basic hand tools, rescue tools, pulling and spreading operations, patient handling, and vehicle stabilization. Actual practice and application of the methods are taught in class. This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.

FIRS 151 FIRE CONTROL 1: BASIC FIRE CHEMISTRY - 1 Unit (P/NP Option)
Class Hours: 18 lecture total
This course is a basic overview of fire chemistry and fire behavior designed for the beginning or volunteer firefighter. Includes classes of fire, fundamentals of heat transfer, fire characteristics of materials, products of combustion, hazardous and explosive materials, extinguishing agents, size up, and exposure protection.

FIRS 152 FIRE CONTROL 2: STRUCTURAL - 1 Unit (P/NP Option)
Class Hours: 18 lecture total
A course designed to provide the student with information, methods and techniques for operating basic fire fighting tools and carrying out basic fire fighting evolutions. Areas covered include hose, nozzles, and fitting; ground ladders, self contained breathing apparatus; pump operations in theory; pump operations in the field; and the use of fire extinguishers.

FIRS 153 FIRE CONTROL 3: STRUCTURAL FIRE FIGHTING - .5 Unit (P/NP Option)
Class Hours: 9 lecture/9 lab total
This course utilizes the burning of derelict buildings to provide students with hands-on fire fighting experience in fire behavior within a building, ventilation; SCBA use and survival techniques, interior fire attack, exterior fire attack, and basic fire investigation as it relates to fire fighting.

FIRS 154 FIRE CONTROL 4: GAS & OIL FIRE FIGHTING - .5 Unit (P/NP Option)
Class Hours: 9 lecture/9 lab total
Classroom and field instruction on Basic Fire Control relating to Emergency Operations. To develop the knowledge and attitude necessary to safely, in emergency and non-emergency modes, control gas and liquid fires.

FIRS 156 FIRE CONTROL 6: WILDLAND FIREFIGHTING ESSENTIALS - 1 Unit (P/NP Option)
Class Hours: 18 lecture total
This wildland fire fighting course provides information, methods and techniques for the utilization of: wildland tactics, hand tools, and hoselays; wildland hand crew operations; and the use of aircraft and bulldozers for wildland fire fighting.

FIRS 157 FIRE ENGINE DRIVER TRAINING - 1 Unit (P/NP Option)
Limitation on Enrollment: In order to complete the requirements of this course and be able to participate in the hands-on-driving portion of the course, all students must obtain from the DMV a Class “B” Restricted Firefighter Drivers License Permit, or possess a valid California Class “B” license, or obtain a California Class “B” permit.
Note: Fire engines must be provided by the students sponsoring agency for drivers training and are responsible for all costs incurred as a result of the use of the vehicle in the training program including insurance which meets district standards.
Class Hours: 9 lecture/27 lab total
A course of both classroom instruction and field application on basic driving laws relating to a California “Restricted Firefighter Drivers License.” This course is designed to develop driving knowledge, attitudes, and skills necessary to operate fire engines safely.

FIRS 158 PUMP OPERATIONS - 1 Unit (P/NP Option)
Class Hours: 18 lecture total
A course designed to develop a knowledge of fire pumps. Subjects to be covered are pumping principles, practical hydraulics, and the ability to drive apparatus and operate pumps.

FIRS 159 FIRE ENGINE DEFENSIVE DRIVING - .5 Unit (P/NP Option)
Class Hours: 9 lecture total
Classroom instruction on basic driving laws relating to Emergency Vehicle Operations. To develop: Emergency Vehicle Operations, driving knowledge, and attitude necessary to operate their vehicles safely in emergency and non-emergency modes.

FIRS 160 TITLE 19 & 24 (FIRE TECHNOLOGY) – 1.5 Unit
Class Hours: 27 lecture total
Designed specifically for fire prevention bureau personnel and others responsible for, or interested in, the enforcement of Title 19 and 24 regulations of the California administrative codes. These codes cover public assembly buildings, such as schools, hospitals, and rest homes. Offered every 3 to 6 years as needed.

FIRS 179 FIRE ATTACK STRATEGY & TACTICS - 1 Unit (P/NP Option)
Class Hours: 9 lecture/27 lab total
This course will overview the technical and practical management of fire ground operations of commercial and residential structures by company officers. This course meets NFPA 1021 Standards for Fire Officer I.

FIRS 180 FIRE MANAGEMENT 1 – 2.5 Units
Class Hours: 45 lecture total
To provide fire service personnel with the basic understanding of supervision and management concepts practices, and theories. Designed for both in-service and pre-service personnel to develop skills that can be used presently and in future career goals.

FIRS 181 FIRE INSTRUCTOR 1A – 1.5 Units
Class Hours: 18 lecture/27 lab total (when offered in the Distance Education format, hours will total 54 for the lecture portion of the class and an additional 27 hours of lab, totaling 81 hours for this course.)
This course will prepare students to deliver manipulative lesson plans within the fire service training system. Material includes: course development, constructing behavioral objectives, writing manipulative lesson plans and theories of learning. Each student must complete two student teaching demonstrations. The lecture portion of this course may be offered in a distance learning format.

FIRS 182 FIRE INSTRUCTOR 1B – 1.5 Units
Class Hours: 18 lecture/27 lab total (when offered in the Distance Education format, hours will total 54 for the lecture portion of the class and an additional 27 hours of lab, totaling 81 hours for this course.)
This course prepares students to deliver "technical" lesson plans within the fire service training systems. Topics include; evaluation, test development, test administration, selections and developing instructional aids and techniques for presentation instruction. Each student must complete two student teaching demonstrations. The lecture portion of this course may be offered in a distance learning format.

FIRS 183 FIRE PREVENTION 1A, INTRODUCTION TO THE CALIFORNIA FIRE CODE - 2 Units
Class Hours: 40 lecture total
This course is designed to instruct students in the areas of fire prevention functions. Topics include: responsibilities, authority for code enforcement, occupancy classifications, building preparation, records management, exiting requirements, plan review, and fire safety education. This course is one of a series for fire officer course work to meet State of California Fire Officer and Fire Prevention Officer certification.

FIRS 184 FIRE PREVENTION 1B, INSPECTION OF FIRE PREVENTION SYSTEMS & SPECIAL HAZARDS - 2 Units
Class Hours: 40 lecture total
Designed to instruct student in the operation and inspection of extinguishers, fixed system, sprinklers, standpipes and alarm systems. Provide technical information on hazardous materials, flammable and combustible liquids and compressed liquefied gasses. Course is one of a series for fire officer course work to meet State of California Fire Officer Certification.

FIRS 185 FIRE COMMAND 2A, COMMAND TACTICS AT MAJOR FIRES – 1.5 Units
Class Hours: 18 lecture/27 lab total
Course prepares the officer to use management techniques and Incident Command Systems when commanding multiple alarms or large suppression forces.

FIRS 189 FIRE INVESTIGATION 1A - 2 Units (P/NP Option)
Class Hours: 40 lecture total (when offered in the Distance Education format, hours will total 112)
This course of study presents theory and fundamentals of fire/explosion investigation techniques. The course material includes theory of legal search and seizure, burn pattern analysis, collection of evidence, ignition sources, fire investigations of structures, vehicles and wildland, report writing, and testifying in court as a fire cause and origin expert. This course may be offered in a distance learning format.

FIRS 191 FIRE INVESTIGATION 1B - 2 Units
Class Hours: 36 lecture/9 lab total (when offered in the Distance Education format, hours will total 117)
This course concentrates on fire evidence identification, preservation and collection including blood stains, paint and fiber evidence, volatile flammables, soil and gunshot residue, fingerprint/shoe print and the track impressions, etc. In addition, this course covers interviewing, fire information sources, and investigation of fatal fires. This course may be offered in a distance learning format.

FIRS 192 FIRE INVESTIGATION REVIEW - .5 Unit (P/NP Option)
Class Hours: 9 lecture total
This is a review course to update fire service personnel in the latest techniques used in fire investigation work, and give information on the following: juvenile fire setter, report writing, evidence collection, preservation procedures, law and legal problems.

FIRS 197 SPECIAL TOPICS IN FIRE TECHNOLOGY – .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in fire technology. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

FIRS 198 SPECIAL SKILLS TOPICS IN FIRE TECHNOLOGY - .5-2 Units (P/NP Option)
Class Hours: 27-108 lab total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in fire technology. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

FIRS 360 LIVE FIRE TRAINING, BASIC STRUCTURAL OPERATIONS - 0 Units
Class Hours: 9 lecture/9 lab total
This course provides the student with hands-on fire fighting experience in fire behavior, ventilation, overhaul, interior and exterior fire attack operations.

FIRS 361 ROPE RIGGING FOR RESCUE - 0 Units
Class Hours: 9 lecture/9 lab total
This course provides the student with hands-on rescue experience in utilizing ropes and related rope rescue equipment. Topics will include: incident and scene assessment, ropes and hardware, knots, rappelling techniques and mechanical advantage systems.

FIRS 362 BASIC FIRE BEHAVIOR AND CHEMISTRY – 0 Units
Class Hours: 18 lecture total
This course provides the student with the concepts of the fire triangle and tetrahedron, fire chemistry, fire behavior, products of combustion, types of extinguishing agents, hazardous materials properties and effects, and oxidizing agents.

FIRS 363 BASIC STRUCTURAL OPERATIONS FOR VOLUNTEERS - 0 Units
Class Hours: 18 lecture total
This course is designed to provide the volunteer firefighter with the fundamental concepts and skills for operating at residential and light commercial structure fires. Topics include the use of handlines, ground ladders, self-contained breathing apparatus, pump operations and the use of fire extinguishers.

FIRS 364 PUMP OPERATIONS FOR VOLUNTEERS – 0 Units
Class Hours: 18 lecture total
A course designed to develop knowledge of fire pumps. Subjects to be covered include pumping principles, practical hydraulics, and the ability to drive apparatus and operate pumps.

FIRE TECHNOLOGY/WILDLAND FIRE TECHNOLOGY LOGISTICS (FTWL)

FTWL 101 WILDLAND FIRE BEHAVIOR - 3 Units (P/NP Option)
Class Hours: 54 lecture total
This course of study is to provide the information necessary to understand wildland fire behavior. The course includes influences that affect basic wildland fire behavior, the seven wildland fire environment factors which must be continuously monitored in making wildland fire behavior predictions, and providing the tools to make spot fire behavior predictions.

FTWL 102 WILDLAND FIREFIGHTER SAFETY AND SURVIVAL - 3 Units (P/NP Option)
Class Hours: 54 lecture total
This course of study places emphasis on avoiding situations and conditions which have resulted in fire shelter deployments, serious injuries and fatalities for wildland firefighters.

FTWL 103 WILDLAND FIRE OPERATIONS - 3 Units (P/NP Option)
Class Hours: 54 lecture total
This course of study presents the command structure and operational processes for ground and air operations in the control of wildland fires.

FTWL 104 WILDLAND PUBLIC INFORMATION OFFICER, PREVENTION, AND INVESTIGATION - 3 Units (P/NP Option)
Class Hours: 54 lecture total
A course of study, which presents the information necessary to understand the roles and functions of the wildland fire information officer, wildland fire prevention, and investigation of wildland fires.

FTWL 105 WILDLAND FIRE PLANNING, LOGISTICS, AND FINANCE - 3 Units (P/NP Option)
Class Hours: 54 lecture total
This course of study explains the roles, responsibilities and functions of the planning, logistics, and finance sections that are utilized during the control of wildland fires.

FTWL 106 INTRODUCTION TO INCIDENT COMMAND SYSTEM I-100 - .5 Unit (P/NP Option)
Class Hours: 9 lecture total
Introduction to Incident Command System I-100 is designed to teach the principles of the Incident Command System and the basic ICS structure and terminology. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 110 DISPLAY PROCESS S-245 - .5 Unit (P/NP Option)
Class Hours: 9 lecture total
A course of study that presents information to enable the student to be able to function as a Display Processor on a wildland fire incident. The course includes how to determine logistical needs, including work materials and work area, how to identify sources of information and collect data, and to identify and be able to create required maps, overlays and displays. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 111 CHECK-IN RECORDER/STATUS RECORDER S-248 - 2 Units (P/NP Option)
Class Hours: 36 lecture total
This course of study presents the information necessary for the student to be able to understand the duties and responsibilities of a Check-in Recorder/Status Recorder on a wildland fire. The course presents how to record information on location and status of equipment, record information of personnel on appropriate forms, and develop organization charts and assignment lists based on information recorded. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 112 ORDERING MANAGER J-252 - .5 Unit (P/NP Option)
Class Hours: 9 lecture total
This course of study presents the necessary information for the student to be able to function as an Ordering Manager on a wildland fire incident. The course includes establishing ordering procedures, set up filing system, identify times and locations for delivery of supplies and equipment, and submission of all ordering documents to documentation control unit before demobilization. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 113 RECEIVING AND DISTRIBUTION MANAGER J-253 - .5 Unit (P/NP Option)
Class Hours: 9 lecture total
This course of study presents the necessary information for the student to function as a Receiving and Distribution Manager on a wildland fire. The course includes establishing procedures for receiving supplies and equipment, review incident action plan and operational instructions provided by logistics section concerning scope and duration of incident operations that may involve supply requirements, determine supply unit personnel requirements, inspect and accept supplies, and provide inventory records to documentation unit upon demobilization of supply unit. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 114 BASE/CAMP MANAGER J-254 - 2 Units (P/NP Option)
Class Hours: 36 lecture total
This course of study presents the information necessary for the student to be able to function as a Base Camp Manager on a wildland fire incident. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 115 EQUIPMENT MANAGER J-255 – 1.5 Units (P/NP Option)
Class Hours: 27 lecture total
This course of study presents the information necessary for the student to be able to function as an Equipment Manager on a wildland fire incident. This course includes obtaining necessary equipment and supplies, how to provide maintenance and fueling according to schedule, preparation of schedules to maximize use of available transportation, inspection of equipment, and preparation and use of proper equipment agreements. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 116 TOOL AND EQUIPMENT SPECIALIST J-256 – .5 Unit (P/NP Option)
Class Hours: 9 lecture total
This course of study presents the necessary information for the student to function as a Tool and Equipment Specialist on a wildland fire incident. The course includes utilization of work space, work assignment, numbers and kinds of tools ordered/on hand, determine personnel requirements, establish a tool inventory and accountability system, ensure that all appropriate safety measures are taken in tool conditioning area, and demobilize tool area in accordance with incident demobilization plan. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 117 INCIDENT COMMUNICATIONS CENTER MANAGER J-257 – 1.5 Units (P/NP Option)
Class Hours: 27 lecture total
This course of study presents the information needed by the student to function as a Communications Manager on a wildland fire incident. This includes how to establish the incident communications/message center, acquire supplies to set up and operate the incident communications/message center, and how to organize and manage the incident communications/message center. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 118 INCIDENT COMMUNICATIONS TECHNICIAN S-258 - 2 Units (P/NP Option)
Class Hours: 36 lecture total
This course of study presents information necessary for the student to be able to function as a Communications Unit Leader on a wildland fire incident. This course includes clear text radio transmissions, interrelationships between ICS functions and the Communications Unit Leader, organize and staff the Communications Unit, and develop an effective communications plan based on the needs for each operational period and complete the necessary paperwork and forms. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 119 SECURITY MANAGER J-259 - .5 Unit (P/NP Option)
Class Hours: 9 lecture total
This course of study presents the information needed by the student to function as a Security Manager on a wildland fire incident. This course includes briefing information from facilities unit leader, how to establish contacts with local law enforcement agencies as required, special custodial requirements which may affect security operations, and develop a security plan. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 120 INTERAGENCY INCIDENT BUSINESS MANAGEMENT S-260 – 1.5 Units (P/NP Option)
Class Hours: 27 lecture total
This course of study presents an understanding of the fiscal issues of wildland firefighting. It includes employee responsibilities and conduct, be able to recruit personnel and equipment for wildland firefighting, and provide fiscally sound equipment and personnel time recording. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 121 PERSONNEL TIME RECORDER J-261 - 1 Unit (P/NP Option)
Class Hours: 18 lecture total
This course of study presents the information necessary for the student to be able to function as a personnel time recorder on a wildland fire incident. This course includes establishing and maintaining employee time reports within the first operational period; how to initiate, gather, or update a time report from all applicable personnel assigned to the incident for each operational period, and ensure that all employee identification information is verified to be correct. Includes contractors and commissary records, and personnel pay documents. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 122 EQUIPMENT TIME RECORDER J-262 - 1 Unit (P/NP Option)
Class Hours: 18 lecture total
This course of study presents the information necessary for the student to be able to function as an Equipment Time Recorder on a wildland fire incident. This course includes how to establish and maintain equipment time reports within the first operational period, the necessary steps to initiate, gather, or update a time report from all applicable equipment assigned to the incident for each operational period and how to close out equipment time documents prior to personnel or equipment leaving the incident. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 123 CLAIMS MANAGER J-263 - 1 Unit (P/NP Option)
Class Hours: 18 lecture total
This course of study presents the information necessary for the student to be able to function as a Claims Manager on a wildland fire incident. This course presents what is required for handling all claims related activities (other than injury) for the incident, utilization of proper support for conducting a claims investigation, preparation of claim reports, and provide information to protect the interest of the government. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 124 COMPENSATION FOR INJURY MANAGER J-264 - 1 Unit (P/NP Option)
Class Hours: 18 lecture total
This course of study presents the information necessary for the student to be able to function as a Compensation for Injury Manager on a wildland fire incident. This course includes how to investigate and document all personnel injury or deaths related to activities on the incident, utilization of the proper support for conducting an injury or death investigation, and preparation of compensation for injury documents in accordance with agency policy and procedures. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 125 COMMISSARY MANAGER J-266 - 1 Unit (P/NP Option)
Class Hours: 18 lecture total
This course of study presents the information necessary for the student to be able to function as a Commissary Manager on a wildland fire incident. The course includes how to set up and provide commissary operation to meet incident needs maintaining complete record of commissary stock including invoices for material received, issuance records, transfer records and closing inventories, and demobilize commissary operation in accordance with incident demobilization plan. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 126 DOCUMENTATION UNIT LEADER J-342 – 1 Unit (P/NP Option)
Class Hours: 18 lecture total
This course of study presents the information necessary for the student to be able to function as a Documentation Unit Leader on a wildland fire incident. This course includes how to establish and organize incident files, retention and filing of duplicate copies of official forms and reports, preparation of incident documentation for planning section chief when requested and maintain, retain, and store incident files for after incident use. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 127 SITUATION UNIT LEADER S-346 - 1 Unit (P/NP Option)
Class Hours: 18 lecture total
This course of study presents the information necessary for the student to be able to function as a Situation Unit Leader on a wildland fire incident. This course includes how to collect all incident related data for the duration of the incident, utilization of infrared data as applicable, post data on unit work displays and command post displays at scheduled intervals or as requested by command post personnel and provide resources and situation status information in response to specific requests. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 128 DEMOBILIZATION UNIT LEADER S-347 - 1 Unit (P/NP Option)
Class Hours: 18 lecture total
This course of study presents the information necessary for the student to be able to function as a Demobilization Unit Leader on a wildland fire incident. This course includes objectives, priorities, and constraints on demobilization from the planning section chief, agency representatives, and contractors as applicable, how to obtain identification and description of surplus resources and probable release times, developing release procedures in coordination with other sections/units and agency dispatch center, and coordinate and closely supervise the demobilization process. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 129 RESOURCES UNIT LEADER S-348 – 1.5 Units (P/NP Option)
Class Hours: 27 lecture total
This course of study presents the information necessary for the student to be able to function as a Resource Unit Leader. This course covers how to gather, post, and maintain incident resource status, gather, post, and maintain resource status of transportation and support vehicles and personnel, and maintain master list of all resources checked in at the incident. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 130 FACILITIES UNIT LEADER S-354 - 2 Units (P/NP Option)
Class Hours: 36 lecture total
This course of study presents an understanding of the duties and responsibilities of the Facilities Unit Leader in a wildland fire incident. The course presents factors in determining requirements for each facility, layouts of incident facilities and activation of incident facilities. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 131 GROUND SUPPORT UNIT LEADER S-355 – .5 Unit (P/NP Option)
Class Hours: 9 lecture total
This course of study presents the information necessary for the student to be able to function as a Ground Support Unit Leader on a wildland fire incident. The course includes how to implement traffic plan developed by planning section, activating fueling, maintenance, and repair of ground resources, how to requisition maintenance and repair supplies, and how to maintain incident roads. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 132 SUPPLY UNIT LEADER S-356 – 1.5 Units (P/NP Option)
Class Hours: 27 lecture total
This course of study presents the information necessary for the student to be able to function as a Supply Unit Leader on a wildland fire incident. This course includes description of the activities of the Supply Unit, what is needed to set up and staff Supply Unit, organization of and staffing of Supply Unit, and demobilization. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 133 FOOD UNIT LEADER S-357 – 1.5 Units (P/NP Option)
Class Hours: 27 lecture total
This course of study presents the information necessary for the student to be able to function as a Food Unit Leader on a wildland fire incident. This course includes how to determine the method of feeding to best fit each situation, obtain the necessary equipment and supplies to operate food service facilities at base and camps, and ensure that all appropriate health and safety measures are taken. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 134 COMMUNICATIONS UNIT LEADER S-358 – 4 Units (P/NP Option)
Class Hours: 72 lecture total
This course of study presents the information necessary for the student to be able to function as a Communications Unit Leader on a wildland fire incident. The course includes how to assess communications capabilities/limitation during preparation of the incident action plan, preparation and implementation of the incident radio communications plan, and supervise communications unit activities. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 135 MEDICAL UNIT LEADER S-359 – 1.5 Units (P/NP Option)
Class Hours: 27 lecture total
This course of study presents the information necessary for the student to be able to function as a Medical Unit Leader. This course covers how to determine level of emergency medical activities, activate medical unit, preparation of the Medical Emergency Plan, and respond to requests for medical aid. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 136 COST UNIT LEADER I-362 - .5 Units (P/NP Option)
Class Hours: 9 lecture total
This course of study presents the information necessary for the student to be able to function as a Cost Unit Leader on a wildland fire incident. The course includes how to set up a system for collecting and documenting all expenditures relating to a wildland fire incident, establishing procedures for collecting cost data, coordination with appropriate personnel, and prepare reports in accordance with agency policy and procedures. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 137 COMPENSATION/CLAIMS UNIT LEADER I-363 - 1 Unit (P/NP Option)
Class Hours: 18 lecture total
This course of study presents the information necessary for the student to be able to function as a Compensation/Claims Unit Leader on a wildland fire incident. The course includes how to set up system for investigating, documenting, and processing claims, initiate investigations on claims, and preparation of claim reports in accordance with agency policy and procedures. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 138 TIME UNIT LEADER I-365 - .5 Unit (P/NP Option)
Class Hours: 12 lecture total
This course of study presents the information necessary for the student to be able to function as a Time Unit Leader on a wildland fire incident. The course includes how to set up system for documenting all personnel assigned to a wildland fire incident, establish procedures for collecting time data, set up commissary operation, and prepare reports in accordance with agency policy and procedures. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 139 PROCUREMENT UNIT LEADER I-368 - .5 Unit (P/NP Option)
Class Hours: 12 lecture total
This course of study presents the information necessary for the student to be able to function as a Procurement Unit Leader on a wildland fire incident. The course includes how to set up a system for collecting and documenting all equipment assigned to a wildland fire incident, how to administer vendor contracts, establish procedures for collecting time data, and prepare reports in accordance with agency policy and procedures. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 140 PLANNING SECTION CHIEF S-440 – 1.5 Units (P/NP Option)
Class Hours: 27 lecture total
This course of study presents the information necessary for the student to be able to function as a Planning Section Chief on a wildland fire incident. The course includes how to develop the relationship between the other General Staff members and the Planning Section Chief, supervise the planning function, and receive information routinely or as requested about operations activities from Situation Unit field observers and operations personnel. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 141 LOGISTICS SECTION CHIEF S-450 - 2 Units (P/NP Option)
Class Hours: 36 lecture total
This course of study presents the information necessary for the student to be able to function as a Logistics Section Chief on a wildland fire incident. The course includes how to organize and staff the Logistics Section to meet the needs of a wildland fire incident, demobilize the Logistics Section according to the demobilization process at a wildland fire incident, and be able to perform as a Logistics Section Chief at a wildland fire incident. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 142 FINANCE SECTION CHIEF S-460 - 2 Units (P/NP Option)
Class Hours: 36 lecture total
This course of study presents the information necessary for the student to be able to function as a Finance Section Chief on a wildland fire incident. The course includes how to establish and be responsible for all financial and cost analysis aspects of the incident, supervising members of the finance section, and ensure that all obligation documents initiated at the incident are properly prepared and completed. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 143 MULTI-AGENCY COORDINATION I-401 – .5 Unit (P/NP Option)
Class Hours: 9 lecture total
A course of study describing the major elements associated with developing and implementing an effective multi-agency coordination system. This course describes essential differences between Area Command, Multi-Agency Coordination Systems, and Jurisdictional Emergency Operations Centers. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWL 144 INCIDENT COMMAND SYSTEM FOR EXECUTIVES I-402 - .5 Unit (P/NP Option)
Class Hours: 9 lecture total
This course of study presents an ICS orientation for executives, administrators, and policy makers. It provides a basic understanding of ICS, unified and area command, and multi-agency coordination to those persons responsible for establishing or implementing policy, but who normally are not a part of the on-scene ICS organization. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FIRE TECHNOLOGY/WILDLAND FIRE TECHNOLOGY OPERATIONS (FTWO)

FTWO 110 BASIC WILDLAND FIRE ORIENTATION S-110 – .5 Unit (P/NP Option)
Class Hours: 9 lecture total
This course of study provides information that is essential for a non-operations individual assigned to a wildland fire incident to have a successful first assignment. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 111 FIREFIGHTER TRAINING S-130 – 2 Units
Class Hours: 36 lecture total
This course of study is designed to train new firefighters in basic firefighting skills, and the knowledge necessary to effectively handle wildland firefighting situations. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 112 ADVANCED FIREFIGHTER TRAINING S-131 – .5 Unit
Class Hours: 9 lecture total
This course of study provides advanced wildland firefighting training and education for those who wish to become qualified in the first level supervision position of Advanced Firefighter/Squad Boss. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the U.S. Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 113 INTRODUCTION TO WILDLAND FIRE BEHAVIOR S-190 – .5 Unit (P/NP Option)
Class Hours: 9 lecture total
This course of study provides an introduction to wildland fire behavior issues that are important to wildland fire spread and safety to firefighters involved in suppression. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 114 INITIAL ATTACK INCIDENT COMMANDER TYPE 4 (ICT4) S-200 – 1.5 Units (P/NP Option)
Class Hours: 27 lecture total
This course of study is designed to provide the initial attack commander of small non-complex wildland fires with the ability to safely suppress the fire within the guidelines of the Incident Command System, and agency guidelines. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 115 SUPERVISORY CONCEPTS AND TECHNIQUES S-201 – 1 Unit (P/NP Option)
Class Hours: 18 lecture total
This course of study is for the experienced wildland firefighter to be able to apply the principles of communication and supervision required of a single resource boss to perform on a wildland fire incident. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 116 FIRE OPERATIONS IN THE WILDLAND/ URBAN INTERFACE S-215 – 2 Units (P/NP Option)
Class Hours: 36 lecture total
A course of study to prepare initial attack incident commanders and company officers to effectively deal with wildland fires that threaten life, property, and improvements. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 117 PORTABLE PUMPS AND WATER USE S-211 – 1.5 Units
Class Hours: 27 lecture total
This course of study is for firefighters needing formal training in order to gain competency in the use of portable pumps and water in wildland fire fighting. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 118 WILDFIRE POWERSAWS S-212 – 1 Unit
Class Hours: 16 lecture/12 lab total
Wildfire Powersaws is a required course for those planning to operate, or directly supervise, the operation of chain saws on wildfires. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 119 DRIVING FOR THE FIRE SERVICE S-216 – 2 Units (P/NP Option)
Class Hours: 36 lecture/12 lab total
This course of study is designed to instruct fire personnel on proper methods and procedures for driving fire equipment on the highway and off-road conditions. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 120 INTERAGENCY HELICOPTER TRAINING GUIDE S-217 – 2.5 Units (P/NP Option)
Class Hours: 45 lecture total
A course of study of the tactical and logistical use of helicopters in wildland fire control operations. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 121 CREW BOSS S-230 – 1.5 Units (P/NP Option)
Class Hours: 27 lecture total
This course of study is to identify the hazards and risks on wildland fires and teach the tactics which are appropriate for the crew boss during the various wildland fire situations. The course also identifies crew boss responsibilities prior to and during mobilization, on the incident and during demobilization. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 122 ENGINE BOSS S-231 – .5 Unit (P/NP Option)
Class Hours: 9 lecture total
This course of study is to prepare advanced firefighters/squad bosses with the ability to understand the function as an engine boss in the control of wildland fires. This course presents the issues of tactics and safety in the control of wildland fires, and identifies the mobilization and demobilization procedures of an engine crew on a wildland fire incident. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 123 DOZER BOSS S-232 – 1 Unit (P/NP Option)
Class Hours: 18 lecture total
This course of study is to prepare advanced firefighters/squad bosses with the ability to understand and function as a dozer boss in the control of wildland fires. This course presents the issues of tactics and safety in the control of wildland fires, and identifies the mobilization and demobilization procedures of a dozer on a wildland fire incident. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 124 TRACTOR PLOW BOSS S-233 – 1.5 Units (P/NP Option)
Class Hours: 27 lecture total
This course of study is to prepare advanced firefighters/squad bosses with the ability to understand and function as a tractor/plow boss in the control of wildland fires. This course presents the issues of tactics and safety in the control of wildland fires, and identifies the mobilization and demobilization procedures of a tractor/plow on a wildland fire incident. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 125 IGNITION OPERATIONS S-234 – 1 Unit (P/NP Option)
Class Hours: 18 lecture/8 lab total
This course of study presents the application of safety considerations involved in a firing operation. It also provides the student with the necessary information to operate, maintain and use firing devices, and to use backfire as an indirect attack method against a rapidly spreading wildfire. The student will also learn the proper application of fire suppression firing methods and practices. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 126 FELLING BOSS S-235 – 1.5 Units (P/NP Option)
Class Hours: 27 lecture total
The felling boss has the responsibility of building fireline in areas where saws are needed to build fire control lines. The felling boss must determine the capabilities and limitations of the felling crew, identify the special equipment needed for the assignment, understand the issues of tactics and safety in the control of wildland fires, and identify the mobilization and demobilization procedures of a felling crew on a wildland fire incident. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 127 STAGING AREA MANAGER J-236 – .5 Unit (P/NP Option)
Class Hours: 9 lecture total
The Staging Manager is responsible for establishing and maintaining staging areas where resources are assigned prior to being given a specific fire assignment. The Staging Manager is responsible for all activities in the staging area including determine if there is any need for temporary assignment of logistics service and support (fuel tender, food delivery, sanitation) to staging areas and make arrangements for temporary logistics, if required, by notifying logistics section chief. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 128 FIELD OBSERVER S-244 – 1.5 Units
Class Hours: 27 lecture total
A course of study providing the student with the necessary skills to function as a Field Observer on a wildland fire incident. This course presents an understanding of the various types of maps used in wildland fire control, map scale and use in determining location of wildland fire, topographic maps and how to use them, and be able to perform calculations to determine the size of fire on a map. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 129 INTERAGENCY INCIDENT BUSINESS MANAGEMENT S-260 – 1.5 Units (P/NP Option)
Class Hours: 27 lecture total
This course of study is designed to teach the basic concepts of fiscal management of wildland fire incidents. It includes correct and fiscally sound personnel and equipment procurement, time recording, and proper documentation. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 130 BASIC AIR OPERATIONS S-270 – 1 Unit (P/NP Option)
Class Hours: 18 lecture total
This course of study presents an understanding of the duties and responsibilities of the Facilities Unit Leader in a wildland fire incident. The course presents factors in determining requirements for each facility, layouts of incident facilities and activation of incident facilities. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 131 HELISPOT MANAGER J-272 – .5 Unit (P/NP Option)
Class Hours: 9 lecture total
This course of study presents the information necessary for the student to be able to function as a Ground Support Unit Leader on a wildland fire incident. The course includes how to implement traffic plan developed by planning section, activating fueling, maintenance, and repair of ground resources, how to requisition maintenance and repair supplies, and how to maintain incident roads. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 132 INTERMEDIATE WILDLAND FIRE BEHAVIOR S-290 – 2 Units
Class Hours: 36 lecture total
This course of study presents the information necessary for the student to be able to function as a Supply Unit Leader on a wildland fire incident. This course includes description of the activities of the Supply Unit, what is needed to setup and staff Supply Unit, organization of and staffing the Supply Unit, and demobilization. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 133 INCIDENT COMMANDER EXTENDED ATTACK S-300 – 1 Unit
Class Hours: 18 lecture total
This course of study presents the information necessary for the student to be able to function as an Incident Commander Type 3 (ICT 3). The course is presented in a lecture/discussion format and supplemented with group exercise. The six instructional units cover: Information Gathering; Planning; Supporting Organization; Operations; Transitioning; and demobilization/Administrative Requirement. NOTE: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-1 standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-1 standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-1 can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 134 LEADERSHIP & ORGANIZATONAL DEVELOPMENT – 3 Units
Class Hours: 27 lecture/81 lab total
This course of study is designed to provide the experienced wildland firefighter with the communication and supervision skills necessary to perform as a unit leader on a wildland fire incident. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 135 TASK FORCE/STRIKE TEAM LEADER S-330 – 1.5 Units (P/NP Option)
Class Hours: 27 lecture total
A course of study for experienced wildland firefighters single resource or crew boss qualified to undertake the role of the Task Force/Strike Team Leader in the control of wildland fires. This includes utilization of increments of equipment in saving lives and property, and to develop the skills necessary to supervise the various types of equipment in the wildland fire control. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 136 FIRE SUPPRESSION TACTICS S-336 – 2 Units (P/NP Option)
Class Hours: 36 lecture total
A course of study that presents the experienced wildland firefighter with the tactics necessary for the safe utilization of resources to control wildland fires. This course covers the review and comparison of tactical assignments with incident objectives, analyzing capabilities of the resources assigned and making work assignments for each resource to accomplish the tactical objectives in an assigned area. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 137 DIVISION/GROUP SUPERVISOR S-339 – 1 Unit (P/NP Option)
Class Hours: 24 lecture total
A course of study for Initial Attack Incident Commanders, Task Force/Strike Team Leaders to be able to function as a Division/Group Supervisor on a wildland fire incident. The course defines and differentiates between the division and group supervisor positions, and teaches the difference between the two positions. The relationships of Division/Group Supervisor is contrasted with Strike Team Leader, Task Force Leader, and Initial Attack Incident Commander. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 138 INTERMEDIATE AVIATION OPERATIONS S-370 – 2 Units (P/NP Option)
Class Hours: 36 lecture total
This course of study is to provide Incident Commanders and other fire line supervisors with an understanding of the aviation tools and knowledge to effectively use aviation resources safely, effectively and efficiently on a wildland fire incident. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 139 HELIBASE MANAGER S-371 – 2 Units (P/NP Option)
Class Hours: 36 lecture total
A course of study that provides the information necessary for an advanced firefighter/crew boss or helicopter manager to take over the function of a helibase on a wildland fire incident. The course covers reporting to assigned helibase and how to determine if staffing and aircraft needs are satisfactory, properly review and implement helibase checklist, identify problems that may necessitate a safety briefing and coordination with Air Support Group Supervisor and Air Tactical Group Supervisor. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 140 HELICOPTER COORDINATOR J-374 – 1.5 Units (P/NP Option)
Class Hours: 27 lecture total
This course of study teaches the duties and responsibilities of the Helicopter Coordinator on a wildland incident. The course includes how to determine aircraft (air tankers and helicopters) operating within incident area of assignment, implement air safety requirements and procedures, and coordinate activities with air attack supervisor, air tanker coordinator, air support supervisor, and ground operations personnel. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 141 AIR SUPPORT GROUP SUPERVISOR J-375 – 1.5 Units (P/NP Option)
Class Hours: 27 lecture total
The Air Support Group Supervisor is primarily responsible for supporting and managing logistical support for helibase and helispot operations. This position identifies resources, supplies dispatched for air support group, requests special air support teams from appropriate sources through logistics section, determines need for assignment of personnel and equipment at each helibase and helispot, and maintains coordination with airbases supporting the incident. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 142 AIR TANKER COORDINATOR S-376 – 2 Units (P/NP Option)
Class Hours: 36 lecture total
The Air Tanker Coordinator is responsible for coordinating air tanker operations, and is always airborne. Duties include if the restricted air space declaration has been requested through FAA, determine the location of fixed-wing facilities supporting air tanker operations, and determine if all aircraft including air tankers and helicopters operating within incident area of assignment. Survey incident area to determine situation, aircraft hazards, and other potential problems. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 143 AIR TACTICAL GROUP SUPERVISOR S-378 – 2 Units (P/NP Option)
Class Hours: 40 lecture total
Air Tactical Group Supervisor is primarily responsible for the coordination of aircraft operations when fixed and/or rotary-wing aircraft are operating on a wildfire. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 144 INTRODUCTION TO WILDLAND FIRE BEHAVIOR CALCULATIONS S-390 – 1 Unit (P/NP Option)
Class Hours: 18 lecture total
This course of study teaches the concepts required in calculating wildland fire behavior for safe and effective fire management operations. It includes local and regional fire behavior issues that are critical to wildland firefighting, comparison of the effects of daytime solar radiation and nighttime heat losses from various sources, descriptions of the effects of terrain, vegetation, clouds, and wind on relative humidity, three types of inversions, and description of their effects on wildland fire behavior. The relationship among general, local (convective), 20-foot, and mid-flame winds is presented along with a description of how topography affects fuels and their availability for combustion. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 145 INCIDENT COMMANDER S-400 – 2 Units (P/NP Option)
Class Hours: 36 lecture total
This course of study presents the duties and functions of the wildland fire Incident Commander. This includes how to set up organizational elements necessary to mitigate the emergency, request additional resources as needed, how to ensure planning meetings are held as necessary, details relating to coordination of staff activity, and how and when to assume command of an incident after the overall situation is reviewed, sufficient information is available to make logical decisions, and takeover coordination can be accomplished. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 146 LIAISON OFFICER S-402 – .5 Unit (P/NP Option)
Class Hours: 12 lecture total
This course of study presents the information necessary for the student to become familiar with the functions and role of the Liaison Officer. This course includes the flow of information between command and all agencies involved in the incident, solving problems with the various agencies involved in the incident, and the difference between assisting and cooperating agencies. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 147 SAFETY OFFICER S-404 – 2 Units (P/NP Option)
Class Hours: 36 lecture total
This course of study presents the necessary information that is required for an individual to function as a Safety Officer on a wildland fire incident. This course includes how to make recommendations that will address those risks or hazards with the highest potential for accidents or injury and follow through with those of lesser degree, how to develop and present alternatives, and present issues related to direct intervention to immediately correct a dangerous situation. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 148 STANDARDS FOR SURVIVAL PMS-416 – .5 Unit (P/NP Option)
Class Hours: 9 lecture total
This course of study presents the introductory information for wildland firefighters on the safety aspects of how to fight fire aggressively but provide for safety first. This course includes information on how to initiate all action based on current and expected fire behavior, how to recognize current weather conditions and obtain forecasts, obtain current information on fire status, and to remain in communication with crew members, your supervisor, and adjoining forces. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 149 HAZARDOUS MATERIALS AWARENESS PROGRAM FOR FIREFIGHTERS PMS-418 – .5 Unit (P/NP Option)
Class Hours: 9 lecture total
This course of study prepares the student to respond to a Haz-Mat incident in a safe and competent manner and be able to function at an operational level. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 150 COMMAND AND GENERAL STAFF S-420 – 2 Units (P/NP Option)
Class Hours: 36 lecture total
This course of study presents advanced training for those individuals who will be assigned to the Command and General Staff positions on a wildland fire incident. This course presents topics that will develop the skills and knowledge that are necessary to perform on wildland Type 2 incidents in a command or general staff position, information required to set up organizational elements necessary to mitigate a wildland fire incident, how to request additional resources as needed, and supervision issues related to coordination of staff activity. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 151 LOOK UP, LOOK DOWN, LOOK AROUND PMS-427 – .5 Unit (P/NP Option)
Class Hours: 9 lecture total
This course of study is a wildland fire behavior refresher for experienced wildland firefighters. It presents the three principle environmental elements affecting wildland fire behavior, three factors of fuel that affect the start and spread of wildland fire, three factors of weather that affect fuel moisture, how wind affects wildland fire spread, four factors of topography that affect wildland fire behavior, and descriptions of the dangerous conditions that can develop in a box canyon and steep narrow canyons. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 152 LEARN TO BEHAVE PMS-428 – .5 Unit (P/NP Option)
Class Hours: 12 lecture total
This course of study, "The BEHAVE" fire behavior prediction and fuel modeling system is a set of interactive, user-friendly computer programs. It is a flexible system that can be adapted to a variety of specific wildland fire management needs. BEHAVE is ideally suited to real-time predictions of the behavior of wildfires or prescribed natural fires. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 154 OPERATIONS SECTION CHIEF S-430 – 1 Unit (P/NP Option)
Class Hours: 18 lecture total
This course of study presents the information necessary to meet the training requirements of the Operations Section Chief. This course presents the information necessary to assess incident assignments and determine immediate needs and actions, a description of the six principles of command and the six basic rules of emergency operations management, delineation of the relationship between General Staff and the Operations Section Chief, and supervision of the operations function. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 155 INCIDENT TRAINING SPECIALIST S-445 – 1 Unit (P/NP Option)
Class Hours: 18 lecture total
A course of study that presents the information needed to organize and implement an incident training program. This course includes how to analyze and prescribe training assignments to fulfill individual development needs of trainees, and to properly document individual trainee performance and the incident training program. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 156 AIR OPERATIONS BRANCH DIRECTOR S-470 – 1.5 Units (P/NP Option)
Class Hours: 27 lecture total
This course of study presents a detailed study of the ICS Aviation Organization. It includes understanding the latest Regional Aviation Program and direction, the ability to apply the latest aviation tools and equipment used in the suppression of wildfires, application of the principles of safety when using aviation resources, recognition of the importance of following aviation regulation when using call-when-needed aircraft, and the interaction among the aviation organization on an incident. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 157 ADVANCED WILDLAND FIRE BEHAVIOR CALCULATIONS S-490 – 2 Units (P/NP Option)
Class Hours: 40 lecture total
This course of study is the fourth National Wildfire Coordinating Group course in wildland fire behavior. This course is designed to give state-of-the-art capability to determine inputs for fire behavior determination and in-depth knowledge of interpretations of model outputs. The material presented teaches participants to project fire perimeter growth based on weather predictions and knowledge of fuels and topography. A variety of fire scenarios are presented for participants to make fire behavior calculations and interpretations. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 158 FACILITATIVE INSTRUCTOR M-410 – 2 Units
Class Hours: 40 lecture total (when offered in the Distance Education format, hours will total 112)
This course of study is to provide experienced wildland firefighting personnel with technical competence in fire management and other disciplines to become effective adult education instructors. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov). This course may be offered in a distance learning format.

FTWO 160 HAZARDOUS MATERIALS FIRST RESPONDER UPDATE – .5 Unit (P/NP Option)
Class Hours: 9 lecture total
This course of study prepares the student to respond to a Hazardous Materials incident in a safe and competent manner and be able to function at an operational level. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 161 MEDICAL FIRST RESPONDER UPDATE – .5 Unit (P/NP Option)
Class Hours: 9 lecture total
This course of study meets California Code of Regulations Title 22 requirements that all personnel that respond to any emergency incidents must be trained in first aid. Further requirements in California Code of Regulations, Title 22 require an annual refresher course to maintain competency. This course meets these re-certification requirements.
Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWO 162 CAMPBELL PREDICTION SYSTEM – 1 Unit (P/NP Option)
Class Hours: 18 lecture total
A course of study that provides an understanding of the fuel flammability issue in predicting wildland fire behavior. The course presents information on how to predict fire behavior in wildland fire situations using flammability variations by time and aspect, learn how to analyze fire situations, to communicate evaluations, and to use logic in making field fire behavior predictions, and to develop the ability to display and communicate the fire potential. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FIRE TECHNOLOGY/WILDLAND FIRE TECHNOLOGY PREVENTION (FTWP)

FTWP 110 PRESCRIBED FIRE FOR BURN BOSSES RX-300 – 3 Units (P/NP Option)
Class Hours: 44 lecture/36 lab total
This course of study identifies the requirements and components for developing burn prescriptions and operational plans. It includes identification of burning techniques that need be applied to meet burn plan requirements, and how to execute the operational plan by meeting local management objectives, smoke dispersal, and visibility objectives within public health standards.
Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWP 111 INTRODUCTION TO WILDFIRE PREVENTION P-101 – .5 Unit (P/NP Option)
Class Hours: 9 lecture total
This course of study is to provide the student with an introduction to wildland fire prevention. The role of wildland fire prevention continues to be important in order to mitigate unplanned ignitions, prevent loss of life, and reduce undesirable damages to property and natural resources. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWP 112 INSPECTING FIRE PRONE PROPERTY P-110 – .5 Unit (P/NP Option)
Class Hours: 9 lecture total
This course of study is to provide the student who has little or no experience in inspecting property, how to conduct inspections of fire prone property, including houses and surrounding structures in forested or rural areas. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWP 113 CALIFORNIA BASIC FIRE PREVENTION P-140 – 2 Units (P/NP Option)
Class Hours: 36 lecture total
This course of study presents the information necessary for the student to be able to function as a fire prevention technician in the prevention of wildland fires. This course presents the responsibilities of fire prevention personnel, the role of Cooperative Forest Fire Prevention, development of a sign and poster plan, interagency cooperation, the role of the National Fire Danger Rating System and fire prevention, and how to conduct inspections of residential and commercial operations. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWP 114 WILFIRE ORIGIN AND CAUSE DETERMINATION P-151 – 1.5 Units (P/NP Option)
Class Hours: 18 lecture/27 lab total
This course of study presents the information necessary for the student to be able to conduct a wildland fire investigation. This course includes how to identify and collect equipment and supplies to conduct a wildfire investigation, record information about the fire, determine the origin of the fire, determine the cause of the fire, properly collect and preserve evidence, interview witnesses and obtain suspect information, prepare and write reports, and how to present testimony before a judge and/or jury. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWP 115 INTRODUCTION TO INCIDENT INFORMATION S-203 – 2 Units (P/NP Option)
Class Hours: 36 lecture total
This course of study provides the introductory information necessary for the student to be able to function as a Public Information Officer on a non-complex wildland fire. This course includes a description of the duties and responsibilities of a Type 3 Information Officer, the kinds and sources of information needed, how to gather and distribute information to meet the needs of print and electronic media, internal audiences, cooperators, communities, landowners, homeowners, local government leaders, and the steps and materials needed to operate an information center and field work site. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWP 117 INTERMEDIATE FIRE PREVENTION P-240 – 2 Units (P/NP Option)
Class Hours: 36 lecture total
This course of study presents additional wildland fire prevention information required for the fire prevention technician. The materials presented include application of federal and state fire laws, an overview of national and regional fire prevention programs and their focus for the future, and an overview of fire prevention planning and its significant components at district and forest level. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWP 120 WILDLAND FIRE PREVENTION PLANNING P-301 – 2 Units (P/NP Option)
Class Hours: 36 lecture total
This course of study is designed for fire managers, fire prevention specialists and planners, and other persons who have fire prevention planning responsibility. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWP 121 WILDLAND FIRE PREVENTION MARKETING P-303 – 2 Units (P/NP Option)
Class Hours: 36 lecture total
This course of study is designed to provide the field Fire Prevention Specialist with the necessary tools to develop a wildfire prevention-marketing plan. It includes methods to generate ideas and provide information to assist in the development of a successful wildfire prevention-marketing program. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWP 122 ADVANCED FIRE PREVENTION P-340 – 2 Units (P/NP Option)
Class Hours: 36 lecture total
This course of study presents advanced techniques for the wildland fire prevention officer. It includes a definition of fire's role in ecosystem management, application of the principles of ecology, sociology, economics, communications, and marketing, to the development and implementation of a fire protection plan, and demonstrate how to gain support for the fire protection plan from management and adjacent landowners. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWP 123 INTRODUCTION TO FIRE EFFECTS RX-340 – 2 Units (P/NP Option)
Class Hours: 36 lecture total
This course of study presents an understanding of land use activity and controlled fire situations. This course includes a description of fire as an ecological process, applications and limitations of fire use, first order fire effects and how to measure them, and the interaction of fire characteristics on natural and cultural resources components that determines first order fire effects. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWP 124 INFORMATION OFFICER S-403 – 2 Units (P/NP Option)
Class Hours: 36 lecture total
This course of study presents the information necessary for the student to be able to function as an Information Officer in a wildland fire. The course includes news release issues, inquiries from media, participate in briefings, meetings, special sessions as a member of the incident management team, and prepare and disseminate information internally to personnel on incident and appropriate agency offices. Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FTWP 126 SMOKE MANAGEMENT TECHNIQUES RX-410 – 2 Units (P/NP Option)
Class Hours: 36 lecture total
This course of study is for experienced Prescribed Fire Managers and Prescribed Fire Behavior Analysts, and presents in detail the legal, professional, and ethical reasons for managing smoke.
Note: While any student can take this course, for National Wildland Coordinating Group Certification, the student must meet a complex set of prior training, prior certification, field trainee assignments, previous education requirements and current employees recommendations for certification (as stated in the United States Forest Service NWCG 310-I standards). This document changes frequently. Students shall ensure that they meet the current NWCG 310-I standards for this course if they desire to receive a course completion certificate. A copy of NWCG 310-I can be found in the Fire Technology Division or at the National Interagency Fire Center Web Site (NIFC.gov).

FIRST AID/CPR/EMT (FAID)

FAID 130 PUBLIC SAFETY FIRST AID (EMS) – 1 Unit
Class Hours: 9 lecture/27 lab total
This course meets Public Safety Training Standards covered by the U.S. Department of Transportation and is recognized by the local EMS Agency.

FAID 132 FIRST RESPONDER (EMS) – 3 Units
Note: A State or local certification as an EMT is not allowed unless the student is 18+ years old, has a valid Professional Rescuer CPR Certificate, passes a recognized EMT Course, has not been convicted of specific crimes and completes an additional state/local EMS authority written exam.
Class Hours: 54 lecture/9 lab total
This course teaches techniques in emergency medical care for the First Responder, which includes Automatic External Defibrillator training. This course also meets Public Safety Training Standard covered by the U.S. Department of Transportation curriculum and approved by the local EMS agency. Note: Students may make application through Nor Cal E.M.S. for certification.

FAID 133 CERTIFICATION CPR FOR THE PROFESSIONAL RESCUER – .5 Unit (P/NP Option)
Class Hours: 9 lecture total
Note: Meets criteria for either the American Red Cross or American Heart Association
This course will cover CPR and how to treat for foreign body obstruction in adults, children, and infants. Designed for the professional rescuer. Upon successful completion of this course, students may apply to be certified in CPR by the agency having jurisdiction.

FAID 134 RECERTIFICATION CPR FOR THE PROFESSIONAL RESCUER – .5 Unit (P/NP Option)
Class Hours: 9 lecture total
This course will cover CPR and how to treat for foreign body obstruction in adults, children, and infants. Designed for the professional rescuer who needs recertification. Upon successful completion of this course, students may apply to be re-certified in CPR by the agency having jurisdiction. This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of paid or volunteer employment.

FAID 175 EMERGENCY MEDICAL TECHNICIAN 1 BASIC – 3.5 Units
Prerequisite: A grade of C or higher in FAID 133, Certification CPR for the Professional Rescuer or any course equivalent to the 2005 American Heart Association's Guidelines for Cardio Pulmonary Resuscitation and Emergency Cardio Vascular Care at the Healthcare Provider Level. Contact Fire Technology Program for questions.
Notes: 1. Ten hours of observation time at a hospital emergency room or on an ambulance will be required. Some providers in the area have requirements for participation in ambulance observation time. American Medical Response requires proof of a current TB skin test, Hepatitis B vaccination, or declination, MMR less than eight years old, Tetanus vaccination less than ten years old and either a past history of oar a titer for Varicella (Chicken Pox). Check with the instructor for details.
2. State certification as an EMT requires that the student is at least 18 years old, has a current "Healthcare provider" CPR card or "CPR for the Professional Rescuer" card, passes a recognized EMT course, has not been convicted of specific crimes, and completes the statewide written and skills examination. (As of 1/1/2006 the state has adopted the National Registry EMT exam as its statewide exam. Upon successful completion of the statewide exam, the student may submit an application to the Local EMS Agency (Northern California Emergency Medical Services) for certification, which is valid statewide).
3. This class meets for additional time "outside" of the scheduled weekly meeting time. This may include Saturdays, Sundays or night shifts. Students are required to purchase or provide items such as safety clothing, BBP protection supplies gloves, safety glasses, etc.
4. State regulations require the EMT students possess CPR training equivalent to the 2005 American Heart Association's Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care at the Healthcare Provider level as a prerequisite for admission to an EMT-1 basic course.
Class Hours: 40 lecture/82 lab (includes 64 hours of skills training and 18 hours auto extrication)
An intensive course to assist the student with developing skill in recognition of symptoms of illness and injuries, and proper procedures in emergency care. Upon successful completion of the course, the student may make application through Northern California Emergency Medical Services, Inc., for certification.)

FAID 178 EMT RECERTIFICATION/FIRST RESPONDER (formerly FAID 178AD) – 1 Unit
Class Hours: 18 lecture/14 lab total
A comprehensive review of signs and symptoms of illness and traumatic injuries. Skills necessary to provide immediate temporary care of such victims are also reviewed. Course is approved by Northern California Emergency Medical Services, Inc. for the purpose of EMT recertification. Upon successful completion of the course, the student may make application through Northern California Emergency Medical Services, Inc. for re-certification. (NCEMS, Inc. requires a minimum grade of 80 percent or better on the Certification Examination for re-certification.) Note: This course may also be taken to satisfy the requirement for recertification as a first responder. Note: This course may be repeated any number of times for credit by persons who are legally mandated to meet training requirements as a condition of continued paid or volunteer employment.

FAID 197 SPECIAL TOPICS IN FIRST AID/CPR/EMT – .5-2 Units
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in first aid/CPR/EMT. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

FAID 198 SPECIAL SKILLS TOPICS IN FIRST AID/CPR/EMT – .5-2 Units (P/NP Option)
Class Hours: 27-108 lab total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in first aid/CPR/EMT. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes.
Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

FRENCH (FREN)

Two years of high school foreign language with grades of “C” or better is equivalent to one semester of foreign language at Shasta College.

FREN 1 ELEMENTARY FRENCH – 5 Units (CAN # FREN 2) (FREN SEQ A) (P/NP Option)
Class Hours: 90 lecture total
This introductory course is designed to give the student intense practice in speaking and listening to French, and reading and writing in French, with additional emphasis on grammar and pronunciation. The class will focus on communication relating to daily life and routine activities, such as people and places, family life, weather, leisure-time activities, and eating and foods. Also, students are introduced to the culture of French-speaking people.

FREN 2 ELEMENTARY FRENCH – 5 Units (CAN # FREN 4) (FREN SEQ A) (P/NP Option)
Prerequisite: A grade of C or higher in FREN 1 or Foreign Language Placement Level 2 or higher
Class Hours: 90 lecture total
In this continuation of Elementary French, there is continued emphasis on listening to oral French and on speaking the language, along with writing and reading French. Students expand their language skills and vocabulary, improving their ability to ask and answer questions, to discuss daily life, events in the past or present, travel, leisure-time activities and shopping. Students will read short texts about French history and culture, as well as watch videos about French-speaking countries.

FREN 3 INTERMEDIATE FRENCH – 3 Units (CAN# FREN 8) (FREN SEQ B) (P/NP Option)
Prerequisite: A grade of C or higher in FREN 2, or Foreign Language Placement Level 3 or higher
Class Hours: 54 lecture total
A thorough review of basic communication skills (speaking, listening, reading, and writing) and formal study of the patterns of French. Students continue to strengthen their speaking skills as they work toward mastery of the language. The course includes reading expository writing along with pieces of French literature.

FREN 4 INTERMEDIATE FRENCH – 3 Units (CAN# FREN 10) (FREN SEQ B) (P/NP Option)
Prerequisite: A grade of C or higher in FREN 3 or Foreign Language Placement Level 4 or higher
Class Hours: 54 lecture total
The fourth semester of the language emphasizes conversation, contemporary literature, French culture and composition. Reading selections include poetry, theatre, and journalistic expressions.

GEOGRAPHIC INFORMATION SYSTEMS (GIS)

GIS 1 SURVEY OF DIGITAL MAPPING – 1 Unit (P/NP Option)
Advisory: A grade of C or higher in CIS 1, or demonstrated general computer literacy
Class Hours: 18 lecture total (when offered in the Distance Education format, hours will total 54)
This course will give students a basic overview of digital mapping technologies, including geographic information systems (GIS), global positioning systems (GPS), Internet mapping services (IMS), and other spatially-oriented solutions. The focus of the course will be to expose students to the many different uses of digital-based mapping products. Students will learn about the various applications by examining topic-specific case studies. ArcExplorer (free download) software will be used to allow students to explore basic GIS functions. This course may be offered in a distance learning format.

GIS 10 INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS (formerly NR 84) – 3 Units (P/NP Option)
Advisory: A grade of C or higher in CIS 1, or demonstrated general computer literacy
Class Hours: 36 lecture/54 lab total
Geographic Information Systems (GIS) are used in a range of fields: urban planning, marketing, public health, natural resource management, and emergency response to name a few. This course will introduce students to fundamental software capabilities of GIS, along with the underlying conceptual framework. Students will learn about the essential qualities of GIS data, including spatial and attribute characteristics. Students will learn procedures for data acquisition from secondary sources, along with data creation and editing. Producing useful, aesthetically pleasing maps will be an integral part of the course. Basic analysis through the use of queries and overlays will also be covered. ArcGIS software will be used for the course.

GIS 20 SPATIAL DATABASES – 1 Unit (P/NP Option)
Advisory: A grade of C or higher in GIS 10
Class Hours: 9 lecture/27 lab total
This course covers database principals, structure and processes as they apply to geographic information systems (GIS). Data management is a critical aspect of GIS. Students will work with various data to learn database fundamentals such as design, indexing, access, and reports. Integration of non-spatial data with GIS data will be a key component of the course. Students will also explore the use of the ArcGIS geodatabase. Microsoft Access and ArcGIS software will be used in the course.

GIS 21 GIS-CAD INTEGRATION – 1 Unit (P/NP Option)
Advisory: A grade of C or higher in GIS 10 or working experience with CAD or GIS
Class Hours: 9 lecture/27 lab total
This course covers computer-aided drafting (CAD) structure, principles and processes as they apply to geographic information systems (GIS). CAD data management is a critical aspect of GIS. Students will work with various CAD data to learn processing and manipulation techniques for displaying and working with CAD data in a GIS. Preparation and georeferencing of CAD data will be key components of the course. AutoCAD and ArcGIS software will be used in this course.

GIS 22 MOBILE GIS/GPS (formerly GIS 13) – 1 Unit (P/NP Option)
Advisory: A grade of C or higher in GIS 20 or a grade of C or higher in NR 83
Class Hours: 9 lecture/27 lab total
This course will serve as an introduction to mobile GIS, which integrates GIS and global positioning systems (GPS) technologies. Mobile GIS brings GIS capability into the field, greatly enhancing the utility of GPS for data collection and the creation of GIS data layers. Students will construct a geographic database and conduct GPS field data collection, using best practices to ensure data quality. Students will process their field data for improved accuracy and update previously existing GIS data. This course will use ArcGIS and ArcPad software, along with Trimble GPS hardware and software.

GIS 23 RASTER GIS – 1 Unit (P/NP Option)
Advisory: A grade of C or higher in GIS 10 or working experience with GIS
Class Hours: 9 lecture/27 lab total
This course provides students skills for access, representation and manipulation of raster data in a range of different formats. Students will learn various methods for the display of raster data. Students will perform manipulation and analysis of grid data sets, such as digital elevation models (DEM). Use of imagery as a foundation GIS dataset will be covered.

GIS 24 CUSTOMIZING GIS – 1 Unit (P/NP Option)
Advisory: A grade of C or higher in GIS 10
Class Hours: 9 lecture/27 lab total
This course introduces students to customizing GIS applications to improve efficiency for specific editing and data manipulation scenarios. Several methods for customizing ArcGIS will be introduced including loading pre-built third party tools, creating custom toolbars, custom buttons, geoprocessing toolboxes, geoprocessing models, along with a brief introduction to writing scripts. The course will briefly introduce the students to programming ArcObjects with VBA and Python for programming scripts.

GIS 25 GIS PROJECTS – 1 Unit (P/NP Option)
Advisory: A grade of C or higher in GIS 10 or working GIS experience
Class Hours: 9 lecture/27 lab total
This course provides students with skills in GIS project design, implementation and management. Successful GIS projects require a systematic approach to identification of system objectives, required resources and implementation approach. Acquisition and management of data, along with project documentation, will also be covered. Students will apply these skills through the design and implementation of a project. Projects will be presented to other GIS users. ArcGIS, ArcPad, and ArcIMS will be the primary software used for the course.

GIS 94 GEOGRAPHIC INFORMATION SYSTEMS WORKSITE LEARNING – 1-4 Units
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

GIS 97 SPECIAL TOPICS IN GEOGRAPHIC INFORMATION SYSTEMS (GIS) – 1-4 Units (P/NP Option)
Class Hours: 18 lecture hours per unit
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in Geographic Information Systems (GIS). A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for agriculture, natural resources, and environmental horticulture majors; open to anyone with an interest in the topic. This course may be repeated three times for a total of four enrollments since subject matter varies.

GEOGRAPHY (GEOG)

GEOG 1A PHYSICAL GEOGRAPHY– 4 Units (CAN # GEOG 2)
Class Hours: 54 lecture/54 lab total
This course explores Earth's physical systems, their dynamic processes, and surface expressions. Topics include weather, climate, hydrology, tectonics, geomorphology, and the biosphere. Attention is given to spatial patterns and impacts of human activities. Lab activities will explore scientific data, its collection, display, and interpretation, for a range of Earth processes and formations. Scientific method of inquiry is employed through the development, testing, and defense of hypotheses to explain observed phenomena. Physical properties of radiation, temperature, pressure, gases, humidity, flowing water, and rocks, will be observed, measured and interpreted.

GEOG 1B CULTURAL GEOGRAPHY – 3 Units (CAN # GEOG 4)
Advisory: A grade of C or higher in ENGL 280 or English Placement Level 5 or higher
Class Hours: 54 lecture total
This course examines the relationships among world cultures in order to investigate population, religion, language, and other societal characteristics. It also analyzes spatial differences among cultures including housing types, family usage of space within the house, and city planning. The role that physical geography plays in determining cultural attitudes and the influence that cultural geography has on the natural ecology are also discussed.

GEOG 2A FIELD GEOGRAPHY (PHYSICAL) – 1 Unit (P/NP Option)
Note: Field excursions will vary throughout California, Southern Oregon and Western Nevada over a three-day weekend or over a series of three Saturdays.
Class Hours: 9 lecture/27 lab total
Field observation of physical processes and formations are essential to the study of geography. Landforms, water resources, erosion hazards, soil conditions, and vegetation patterns are among the topics that illustrate the interactions between humans and the environment. Each course offering will emphasize a particular topic in physical geography, with unique field sites selected to demonstrate the topics in question. Students will be exposed to a range of field techniques including sampling and the use of various types of measurement equipment. Field excursions will vary throughout California, Southern Oregon and Western Nevada over a three-day weekend or over a series of three Saturdays. Students will also attend three 3-hour lecture sessions. Additional field trip fees for lodging, entrance fees and related items will be specified in the course schedule.

GEOG 2B FIELD GEOGRAPHY (CULTURAL) – 1 Unit (P/NP Option)
Note: Field excursions will vary throughout California, Southern Oregon and Western Nevada over a three-day weekend or over a series of three Saturdays.
Class Hours: 9 Lecture/27 Lab total
Field observation and analysis of human landscapes is essential to the student cultural geography. Topics including land-use patterns, economic and transportation systems, wealth disparities, cultural practices and historical legacies will be explored in the field. Each course offering will emphasize a particular topic in cultural geography, with unique field sites selected to demonstrate the topic in question. Students will be exposed to field techniques including note taking, interviews, field mapping, and document research. Field excursions will vary throughout California, Southern Oregon and Western Nevada over a three-day weekend or over a series of three Saturdays. Students will also attend three 3-hour lecture sessions. Additional trip fees for lodging, entrance fees and related items will be specified in the course schedule.

GEOG 7 CALIFORNIA GEOGRAPHY – 3 Units
Advisory: A grade of C or higher in ENGL 280 or English Placement Level 5 or higher
Class Hours: 54 lecture total (when offered in the Distance education format, hours will total 162)
This course provides an introduction to California's diversified geography including climate, landforms, natural vegetation, and mineral and water resources. The cultural landscapes of ethnic diversity, our Native American past, urban and agricultural regions and the economic challenges of the future are also examined. California Geography examines these topics, their spatial distributions and their impact on the environment. Class includes a Saturday field trip; Internet offering includes a virtual field trip. This course may be offered in a distance learning format.

GEOG 8 WORLD REGIONAL GEOGRAPHY – 3 Units
Advisory: A grade of C or higher in ENGL 280 or English Placement Level 5 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course will introduce students to the world's major geographic regions. This course will increase student awareness of geographic concepts by examining the physical, cultural, economic and political characteristics of the major realms of the world through the unifying concept of the geographic region. This course will illustrate the importance of the world's geographic regions and how they interrelate. The location of important geographic features such as mountain ranges, rivers, countries, and major cities will be an important part of the course. This course may be offered in a distance learning format.

GEOG 11 MAP PRINCIPLES – 1 Unit (P/NP Option)
Class Hours: 18 lecture total
This course will cover essential map principles. A variety of different types of maps and their uses will be explored, along with methods of data collection and representation employed. Students will explore the concept of map scale and its applicability to using maps for measurement. Map projections, coordinate systems, and datums will be explored with respect to their effective use and potential pitfalls. Map abstraction, symbology, and cartogrtaphic principles will be covered as well.

GEOLOGY

See Earth Science – ESCI

GERMAN (GERM)

Two years of high school foreign language with grades of "C" or better is equivalent to one semester of foreign language at Shasta College.

GERM 1 ELEMENTARY GERMAN – 5 Units
(CAN# GERM 2) (GERM SEQ A) (P/NP Option)
Class Hours: 90 lecture total
This course is designed to give the student training in spoken German at a basic level, including some reading, writing, and much speaking. Students gain aural comprehension level of German through basic conversation and listening skill development. Customs and culture are also emphasized.

GERM 2 ELEMENTARY GERMAN – 5 Units
(CAN# GERM 4) (GERM SEQ A) (P/NP Option)
Prerequisite: A grade of C or higher in GERM 1, or Foreign Language Placement Level 2 or higher
Class Hours: 90 lecture total
This course takes the student on to a more proficient level of German. Comprehension and speaking levels are increased through participation in many oral activities (role playing, skits, plays, etc). Further information on culture and traditions are provided, including information regarding Germany's position in the world today.

GERM 3 INTERMEDIATE GERMAN – 3 Units
(P/NP Option) (CAN # GERM 8) (GERM SEQ B)
Prerequisite: A grade of C or higher in GERM 2 or Foreign Language Placement Level 3 or higher
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 54 lecture total
This course is designed to give the student advanced training in German pronunciation, essentials of German grammar, reading, writing and speaking. Composition and literature are introduced. The student also learns about customs and culture of German-speaking people.

GERM 4 INTERMEDIATE GERMAN – 3 Units (P/NP Option)
(CAN # GERM 10) (GERM SEQ B)
Prerequisite: A grade of C or higher in GERM 3 or Foreign Language Placement Level 4
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 54 lecture total
This course builds on the higher language skills acquired in GERM 3 with greater emphasis on the linguistic diversity of the language. Emphasis is placed on a more extensive study of composition and conversation together with greater stress on extensive reading in German literature.

GERONTOLOGY (GERO)

GERO 24 ETHNIC DIVERSITY AND AGING – 2 Units
(P/NP Option)
Class Hours: 36 lecture total
This course examines general trends in minority aging with a look at how culture influences their utilization of services available. The role of diet and nutrition are studied. Topics include stereotypes, social bonds, environmental factors, sexuality, mental health, diet, nutrition, and utilization of available resources.

GERO 64 COPING WITH MENTAL ILLNESS AND DEMENTIA IN OLD AGE – 3 Units (P/NP Option)
Class Hours: 54 lecture total
This course provides a basis for those interested in understanding more about different mental health issues of individuals during the aging process. The course will explore how the healthy brain functions. Information will be given on how to identify mental disease in the elderly along with treatments available and interventions to provide them with a better quality of life. Topics include dementia, depression, stereotypes, social bonds, environmental factors, home modifications, caregiver options, medical interventions, and placement.

GERO 75 DEATH AND DYING – 2 Units (P/NP Option)
Class Hours: 36 lecture total
This course examines dying, death, and bereavement. History of dying and how Americans die today will be covered. Topics include social bonds, environmental factors, dying process, quality of life, cultural differences in death, ethical issues, and dealing with death.

GERO 77 FAMILY DYNAMICS AND AGING – 3 Units
(P/NP Option)
Class Hours: 54 lecture total
This course examines older persons in a family context. The dynamics of family ties throughout life will be explored. Topics include the evolution of sibling relations and intimate ties will be covered, the costs and benefits of caregiver roles will be assessed as well as the effects of divorce and remarriage in later life.

HEALTH (HLTH)

HLTH 1 HEALTH AND WELLNESS (formerly PE 1, HPE 11) - 3 Units (P/NP Option)
Class Hours: 54 lecture total
This course focuses upon those elements of human behavior which influence the health status of both the individual and the community. Topics include personal fitness, nutrition, sexuality, sexually transmitted disease, drug dependence including alcohol and tobacco. Also included are topics dealing with lifestyle disease, especially cancer, cardiovascular disease and lung disease.

HLTH 2 NUTRITION AND FITNESS (formerly PE 2, HPE 7) - 3 Units (P/NP Option)
Class Hours: 54 lecture
Analysis and evaluation of current practices and theories regarding nutrition and exercise, and their relationship to weight control and physical fitness. Each student will learn to prepare an individual physical assessment, exercise prescription and nutritional analysis to promote optimum healthful living.

HLTH 3 SUBSTANCE ABUSE AWARENESS (formerly PE 3, HPE 57) - 3 Units (P/NP Option)
Class Hours: 54 lecture total
An introductory course for individuals who wish to increase their knowledge and understanding of substance abuse and chemical addiction. This course will introduce students to a variety of substances that can become abused and can lead to addiction. The substances covered in this course include: Tobacco (including smokeless tobacco), alcohol, street/recreational drugs, performance enhancing drugs, and sexual stimulants. Information will focus on the physical and societal affects of the misuse and abuse of these substances and methods that can lead to the control and/or elimination of use of these substances.

HLTH 5 FITNESS USING TECHNOLOGICAL ASSESSMENT (formerly PE 5) - 2 Units (P/NP Option)
Class Hours: 27 lecture/27 lab total
A lifetime fitness class which utilizes computerized equipment and programs to provide students with the means to conduct personal fitness assessments and evaluate their lifestyles continuously. Students will design and analyze programs to improve their physical, mental, and nutritional needs by using current technological systems and programs. Computerized Fitness and Wellness Profiles, personalized cardiovascular exercise prescriptions and nutrient analysis will be provided.

HLTH 8 PRINCIPLES OF ADAPTED EXERCISE FOR ADULTS (formerly PE 24, HPE 89AD) – 2 Units (P/NP Option)
Advisory: Concurrent enrollment in HLTH 9
Class Hours: 36 lecture total
Designed to provide background lecture information for students who are interested in a career in physical education for health occupations and physical therapy. Course provides theory in therapeutic recreation, corrective therapy, special education, or any other area which involves physically limited individuals.

HLTH 9 PRINCIPLES OF ADAPTED EXERCISE FOR ADULTS LAB (formerly PE 25) - 1-2 Units (P/NP Option)
Advisory: Concurrent enrollment in HLTH 8 the first semester
Class Hours: 54-108 lab total
Designed to provide practical experience and formal training for students who are interested in a career in physical education for health occupations and physical therapy. Course provides training in therapeutic recreation, corrective therapy or any other area which involves physically-limited individuals.

HLTH 10 BEGINNING ATHLETIC TRAINING (formerly PEAT 1, HPE 91) - 3 Units (P/NP Option)
Class Hours: 54 lecture total
Theory and practice in care and prevention of athletic injuries. Course will cover basic injury prevention, recognition, emergency care and treatment of injuries. Students will have the opportunity to become certified in an American Red Cross "Sport Safety Training" course.

HEALTH OCCUPATIONS (HEOC)

See Also: REGN, and VOCN

HEOC 94 HEALTH OCCUPATIONS WORKSITE LEARNING – 1-4 Units
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

HEOC 100 PREPARING FOR A NURSING CAREER – 2 Units
Class Hours: 36 Lecture total
This course presents the role of the Associate Degree Nurse and the Vocational Nurse within various healthcare settings. Students will assess their own learning styles and compare their abilities to those required in nursing. Critical thinking skills will be introduced and applied to various scenarios using the knowledge base acquired from prerequisite courses and life experiences. Written, verbal, and math skills will be emphasized, along with exercises in examination, presentation, and interview skills. Learning resources, study strategies and stress management will be addressed to prepare the Associate Degree Nursing and Vocational Nursing candidate for the rigors of being a nursing student.

HEOC 101 NURSE UPDATE – 5 Units
Limitation on Enrollment: California Registered Nurse or Licensed Vocational Nurse
Class Hours: 54 lecture/108 lab total
This course has been designed to orient and update registered nurses and licensed vocational nurses on current techniques of nursing care including medications, I.V. therapy, nursing care plans and team leader duties. Supervised hospital experience will be conducted to prepare the RN/LVN to assume staff nurse duties upon completion of the course. The program allows for individual differences of learning. Approved for 30 hours Continuing Education credit.

HEOC 110 BEGINNING MEDICAL TERMINOLOGY (formerly MEDA 151) – 3 Units
Class Hours: 54 lecture total
This course provides students with an understanding of the language of medicine through the study of basic word structures and anatomical, pathological, and operative terms used within the integumentary, musculoskeletal, nervous, cardiovascular, respiratory systems, blood and lymphatic systems and digestive system.

HEOC 111 ADVANCED MEDICAL TERMINOLOGY (formerly MEDA 152) – 3 Units
Prerequisite: A grade of C or higher in HEOC 110
Class Hours: 54 lecture total
This course is a continuation of HEOC 110 providing students with an understanding of medical terms used within the endocrine, special senses, urinary, male and female reproductive systems, and specialty areas such as Obstetrics, Pharmacology, Mental health, and Gerontology.

HEOC 152 CRITICAL CARE NURSING I (formerly HEOC 192AB) – 4 Units
Advisory: Designed for the Registered Nurse
Class Hours: 72 lecture total
Designed to provide registered nurses currently practicing or intending to practice in a critical care area with an in-depth knowledge base necessary to deliver optimal care to patients in the critical care units. The course will include a study of anatomy, physiology and pathophysiology of the cardiovascular, respiratory, renal and neurologic systems. Emphasis will be placed on assessment of the critical care patient and medical and nursing interventions in current practice. This course will heavily utilize the case study approach and practice of clinical application.

HEOC 153 CRITICAL CARE NURSING II (formerly HEOC 192CD) – 4 Units
Advisory: Designed for the Registered Nurse
Class Hours: 72 lecture total
Designed to provide registered nurses currently practicing or intending to practice in a critical care area with clinical application of the knowledge and skills required for critical care nursing. The course will include advanced problems related to cardiovascular, respiratory, renal, and neurologic systems and will heavily utilize the case study approach.

HEOC 154 CARDIAC CARE – 3 Units
Limitation on Enrollment: Registered Nurse or Licensed Vocational Nurse
Class Hours: 54 lecture total
This course is designed to provide the basic knowledge necessary to care for a patient in a cardiovascular unit. The content will include an overview of basic cardiac anatomy and physiology, basic dysrhythmia interpretation and the mechanisms responsible for their formation, 12 lead ECG interpretation, acute coronary syndromes, interventional cardiology, thrombolytics, cardiac surgery, valvular disorders, heart failure, cardiomyopathy, pacemakers, cardiovascular drugs and hemodynamics.

HEOC 159 PSYCHIATRIC NURSING – 3 Units
Note: Designed for Registered Nurse, Licensed Vocational Nurse, or Human Service Worker
Class Hours: 54 lecture total
This course is designed to provide a basic knowledge of psychiatric intervention for those nurses with only medical-surgical experience. It is also designed to provide skill improvement and updated information for the practicing psychiatric nurse as well as other human services workers. The content is designed to emphasize nursing assessment, care planning, therapeutic interventions specific to each diagnostic area, and current trends in practice.

HEOC 160 STRESS MANAGEMENT (formerly HEOC 185) – 2 Units
Class Hours: 36 lecture total
This class is designed to teach students the skills needed to recognize that all stressors affecting our actions are driven by our beliefs and values and how they affect the choices we make in dealing with stress. It will provide students with the opportunity to practice a variety of coping techniques that will assist them in making their lives less stressful. These techniques will include relaxation, the development of a support system, effective communication and listening. Students will gain the knowledge necessary to recognize their uniqueness and the importance of developing their personal power. Upon completion of this course, students will have the skills necessary to know how choices affect the quality of their lives and how to bring about positive life-style change.

HEOC 161 CE: PATIENT-FOCUSED COMMUNICATION (formerly HEOC 187, HEOC 198) - .5 Unit
Note: This course is approved by the State Department of Health Services to meet the continuing education hours required to maintain nurse assistant certification.
Class Hours: 9 lecture total
Designed to explore and improve the communication process as it relates to the delivery of patient care. Psycho-social factors influencing communication and the impact of sensory/cognitive impairments on communication will also be presented.

HEOC 162 CE: COMMUNICATION IN HEALTH CARE (formerly HEOC 187, HEOC 198) - .5 Unit
Note: This course is approved by the State Department of Health Services to meet the continuing education hours required to maintain nurse assistant certification.
Class Hours: 9 lecture total
Designed to enhance knowledge of effective communication techniques and the influence of communication on staff relations. The importance of both verbal and written communication in the delivery of health care will be presented.

HEOC 166 BASIC OPHTHALMIC DISPENSING (formerly HEOC 166AB) – 2 Units
Class Hours: 36 lecture total
This course is designed to prepare students for entrance into the ophthalmic dispensing field. This course will consist of lectures, videotapes, slides and films. No special materials are necessary.

HEOC 167 ADVANCED OPHTHALMIC DISPENSING AND ASSISTING (formerly HEOC 166CD) – 2 Units
Prerequisite: A grade of C or higher in HEOC 166
Class Hours: 36 lecture total
This course is designed to assist students who are currently working in, or seeking to reenter, the ophthalmic dispensing field to improve their skills. This course will consist of lectures, videotapes, slides and films. No special materials are necessary.

HEOC 171 C.E.: CARING FOR THE DYING PERSON (formerly HEOC 182) – .5 Unit
Note: This course is approved by the State Department of Health Services to meet the continuing education hours required to maintain nurse assistant certification.
Class Hours: 9 lecture total
Designed to explore the physical and psychosocial needs of the dying older adult. The nurse assistant role in caring for the dying person and the needs of their family members will be examined.

HEOC 172 C.E.: DEALING WITH DEATH (formerly HEOC 182) – .5 Unit
Note: This course is approved by the State Department of Health Services to meet the continuing education hours required to maintain nurse assistant certification.
Class Hours: 9 lecture total
Designed to teach students how to recognize the signs of approaching death. The patient self-determination act will be examined and its legal/ethical impact will be discussed. The student will be able to identify responsibilities related to post mortem care.

HEOC 173 C.E.: AGING, ILLNESS, AND BEHAVIOR (formerly HEOC 183) – .5 Unit
Note: This course is approved by the State Department of Health Services to meet the continuing education hours required to maintain nurse assistant certification.
Class Hours: 9 lecture total
Designed to explore the behavioral changes common to the aging population in the health care setting. The relationship between changes associated with aging and adjustment will be presented. The impact of illness on behavior and the influence of emotions on physical functioning will also be discussed.

HEOC 174 C.E.: COPING WITH PATTERNS OF BEHAVIOR (formerly HEOC 183) – .5 Unit
Note: This course is approved by the State Department of Health Services to meet the continuing education hours required to maintain nurse assistant certification.
Class Hours: 9 lecture total
Designed to examine common behavior problems encountered in the care of the aging resident. New skills will be presented which will guide the nurse assistant in practicing effective inter-personal relationships in the health care setting and home environment.

HEOC 176 C.E.: PHYSICAL CHANGES ASSOCIATED WITH AGING (formerly HEOC 184) – .5 Unit
Note: This course is approved by the State Department of Health Services to meet the continuing education hours required to maintain nurse assistant certification.
Class Hours: 9 lecture total
Designed to examine the health conditions common to the aging process. Recognizing the significance of vital sign values to wellness and illness will be emphasized. Topics to be discussed will include the role of the nursing assistant in caring for those with age-related respiratory and cardio vascular disorders.

HEOC 177 C.E.: AGE-RELATED HEALTH DISORDERS (formerly HEOC 184) – .5 Unit
Note: This course is approved by the State Department of Health Services to meet the continuing education hours required to maintain nurse assistant certification.
Class Hours: 9 lecture total
Designed to examine the role of the nursing assistant in caring for individuals with age-related health conditions. Common disorders of the endocrine, musculoskeletal and neurological systems will be presented.

HEOC 180 NURSE AIDE/HOME HEALTH AIDE – 13 Units
Note: All students enrolling in a NA/HHA Program must be fingerprinted and cleared of all criminal convictions before they can be certified.
Class Hours: 144 lecture/288 clinical total
Course is designed to prepare students to perform the basic nursing skills required in acute hospitals, long-term care facilities, and home health agencies. Special emphasis is placed on health care provisions and modifications in the community health care settings. The State Department of Health Services approves this course, and certificates will be issued upon successful completion of the course. Students are then eligible to apply for the state competency examination for certification.

HEOC 181 NURSE AIDE – 9 Units
Note: All students enrolling in a NA Program must be fingerprinted and cleared of all criminal convictions before they can be certified.
Class Hours: 96 lecture/192 clinical total
This course is designed to prepare students to perform the basic skills required of a nurse aide. Course content consists of theory, laboratory, and clinical experience in long term care facilities. The course is approved by the State Department of Health Services. A certificate will be issued upon successful completion of the course. Students are then eligible to apply for the state competency examination for certification.

HEOC 186 HOME HEALTH AIDE - 3 Units
Limitation on Enrollment: Nurse Aide Certification
Class Hours: 36 lecture/54 lab total (2 weeks)
Designed to prepare Certified Nurse Assistants to perform the basic nursing skills required in the home. The State Department of Health Services has approved this course. Students will be awarded a certificate upon successful completion of the course.

HEOC 188 PREPARING FOR END-OF-LIFE CARE - 1 Unit
Class Hours: 18 lecture total
This course is designed to educate health care providers in the essential clinical competencies required to provide quality end-of-life care.

HEOC 192 PERIOPERATIVE NURSING - 3 Units
Limitation on Enrollment: Valid California RN license
Class Hours: 18 lecture/ 108 lab total
This course is designed to provide the licensed RN with an introduction to both the theory and clinical aspects of the perioperative nursing role. Theory will cover a range of topics from exploring the surgical setting to professionalism and ethics in the perioperative environment. Each student will arrange a clinical rotation in an approved OR to experience the various aspects of the RN's role in the perioperative environment. This course is designed to provide the licensed RN with a limited OR experience to allow them to explore the field of OR nursing and to provide an opportunity to move into the field of OR nursing.

HEOC 194 OBSTETRICAL NURSING UPDATE - 3 Units
Limitation on Enrollment: Registered Nurse
Class Hours: 54 lecture total
Designed to provide the student with updated knowledge to utilize the nursing process as it is related to the obstetrical role. Classroom content emphasizes the theoretical basis for the practices of current obstetrical nursing. Essential skills such as physical assessment of the expectant woman, fetal monitoring, assessment of the labor progress and concurrent management, along with assessment of high risk factors and appropriate labor management, VBAC deliveries, cesarean sections, postpartum and postoperative care for the new mother.

HEOC 196 SPECIAL TOPICS IN HEALTH OCCUPATIONS THEORY - .5 – 3 Units (P/NP Option)
Advisory: May advise certain clinical experience or length of time working as a nurse depending upon the course
Class Hours: 9-54 lecture total
This course is designed to give students an opportunity to explore a variety of topics and concepts not covered in other Health Occupations courses. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

HEOC 197 PHARMACOLOGY FOR NURSES - 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
HEOC 197 is designed to enhance the pharmacological knowledge base of practicing nurses and nursing students. Utilizing a systems approach, pharmacological therapy is tied to the physiology and pathophysiology of the human body. The pharmacokinetics and pharmacodynamics of medications are explored. Therapeutic agents are broken down into drug classifications, names, actions, uses, side effects, and nursing concerns. Emphasis is placed on the bedside nurse's role in the administration of medications. This course may be offered in a distance learning format.

HEOC 198 SPECIAL TOPICS IN HEALTH OCCUPATIONS CLINICAL - .5 – 3 Units (P/NP Option)
Advisory: May advise certain clinical experience or length of time working as a nurse depending upon the course
Class Hours: 9-54 lecture total
This course is designed to give students an opportunity to explore a variety of topics and concepts not covered in other Health Occupations courses. As a lab course it will also offer the opportunity for clinical exploration of various health occupations careers. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

HISTORY (HIST)

HIST 1A HISTORY OF WESTERN CIVILIZATION – 3 Units (P/NP Option) (CAN# HIST 2) (HIST SEQ A)
Advisory: A grade of C or higher in ENGL 190 or English Placement Level 6 or higher, or a grade of C or higher in ESL 138 or ESL Placement Level 8
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A survey of the origins and development of civilization in the western world from pre-history to 1600, with special emphasis on institutions, thought, and culture. The course is designed to show the continuity of western civilization and to overview the heritage of the present generation. This course may be offered in a distance learning format.

HIST 1B HISTORY OF WESTERN CIVILIZATION - 3 Units (P/NP Option) (CAN# HIST 4) (HIST SEQ A)
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher, or a grade of C or higher in ESL 138 or ESL Placement Level 8 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A survey of the development of civilization in the western world from 1600 to the present, with special emphasis on institutions, thought, and culture. The course is designed to show the continuity of western civilization and to explore the heritage of the present generation. This course may be offered in a distance learning format.

HIST 2 WORLD CIVILIZATION TO 1500 C.E. - 3 Units (P/NP Option) (CAN# HIST 14)
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher, or a grade of C or higher in ESL 138 or ESL Placement Level 8 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A comparative survey of the major ancient world civilizations which developed between 3500 B.C.E. and 1500 C.E. Political institutions, religious ideologies, rise and fall of empires and the major cultural innovations of each of the major world civilizations will be considered. This course may be offered in a distance learning format.

HIST 3 WORLD CIVILIZATION: 1500 to Present - 3 Units
Advisory: A grade of C or higher in ENGL 190 or English Placement Level 6 or higher, or a grade of C or higher in ESL 138 or ESL Placement Level 8 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A survey of the development of the major civilizations of the world from 1500 to the present. The focus is on the political, economic, social, intellectual and religious forces present in the rise of Africa, the Americas, Asia and Europe from 1500 to the present day. The study of the dynamic interaction of peoples and cultures will give a multi-perspective view of world history. This course may be offered in a distance learning format.

HIST 17A UNITED STATES HISTORY AND GOVERNMENT - 3 Units (P/NP Option) (CAN# HIST 8) (HIST SEQ B)
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A survey of the history of the United States from the discovery of America to the close of the Civil War. The exploration and settlement of America and the growth of a movement for independence are traced. The formation of a new nation and creation of the Constitution and its basic principles are described, as are the beginnings of the westward movement and the development of manifest destiny. The causes of the Civil War and the war itself are also examined. This course partially satisfies the State of California requirement in the U.S. Constitution and state and local governments. This course may be offered in a distance learning format.

HIST 17B UNITED STATES HISTORY AND GOVERNMENT - 3 Units (P/NP Option) (CAN# HIST 10) (HIST SEQ B)
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course traces the development of the problems of the Reconstruction Period, the movement toward regulation of the economic system, and the acceptance by the United States of world power and leadership. It discusses the causes and results of the Great Depression, the two world wars of the 20th Century, and the "Cold War." This course partially satisfies the State of California requirement for course work in U.S. Constitution and the state and local government. This course may be offered in a distance learning format.

HIST 25 AFRICAN AMERICAN HISTORY - 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 190, ESL 138, or English Placement Level 6 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
Emphasizes the historical development, contributions, and present state of African American people in America. Begins with a survey of African civilizations, continues with the involvement of Europeans in the slave trade, the institution of slavery in America, the Reconstruction Period, and historical perspective of the Civil Rights Movement, the current urban crisis, and the varied philosophies of social change. This course may be offered in a distance learning format.

HIST 35 HISTORY OF MEXICAN AMERICANS - 3 Units
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher, or a grade of C or higher in ESL 138 or ESL Placement Level 8 or higher
Class Hours: 54 lecture total
This course traces the cultural, economic, literary, and political history of the Mexican and Mexican American in the U.S. up to the present. Focus will be on the development and nature of Mexican and Chicano culture and the Chicano movement, emphasizing especially significant historical movements and their contribution to understanding current cultural problems. Socioeconomic and political forces that shaped U.S. policies and practices in relation to the Mexican immigrant and Mexican Americans will be developed.

HIST 36 HISTORY OF THE FAR EAST - 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 190 or English Placement Level 6 or higher, or a grade of C or higher in ESL 138 or ESL Placement Level 8 or higher
Class Hours: 54 lecture total
An introduction to the contemporary Far East. Designed primarily for the student who has had no previous contact with the region. Survey of the people, cultures, economics, and current problems, with major emphasis on China and Japan. The majority of the survey deals with events since 1800.

HIST 38 HISTORY OF WORLD RELIGIONS - 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 190 or English Placement Level 6, or higher or a grade of C or higher in ESL 138 or ESL Placement Level 8 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A course designed to give the student an understanding of the beliefs systems and historical development of the world's religions and an appreciation of the contribution of religion to the cultural heritage in which he lives. This course may be offered in a distance learning format.

HIST 40 HISTORY AND GOVERNMENT OF CALIFORNIA - 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 190 or English Placement Level 6, or higher or a grade of C or higher in ESL 138 or ESL Placement Level 8 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A survey of the development of California from the Spanish period to the present day. Emphasis will be placed on contemporary development. The role of government is given particular attention. This course may be offered in a distance learning format.

HIST 55 HISTORY OF THE AMERICAN FRONTIER – 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 190 or English Placement Level 6, or higher or a grade of C or higher in ESL 138 or ESL Placement Level 8 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course is designed to cover the aspects of frontier life from 1600 to 1900 in America. The course covers traditional attitudes such as manifest destiny and the Protestant ethic on the frontier, as well as policies of the frontier like the Indian policy after 1830. The course is broken down into eras of frontier movement and examines cultural evolution on the frontier. The course ends with a discussion of the "Wild West", which is post-Civil War and culminates with acquisition of areas beyond the continental United States. This course may be offered in a distance learning format.

HIST 57 RUSSIAN HISTORY - 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 190 or English Placement Level 6 or higher, or a grade of C or higher in ESL 138 or ESL Placement Level 8 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A general survey of the Russian State from the beginning of the Kievan era (1054) to modern Soviet Russia. Included will be an analysis of the cultural, religious, economic, and social institutions of each century. Particular emphasis will be placed on contemporary Soviet Russia. Contributions of individual Russian Leaders will be discussed. This course may be offered in a distance learning format.

HIST 177 LOCAL HISTORY OF SHASTA COUNTY (formerly HIST 177A) - 3 Units (P/NP Option)
Class Hours: 54 lecture total
A course designed to broaden the student's knowledge of Shasta County history. The course will include presentations on Native American history, trappers, explorers, early trails and roads, the Gold Rush, early settlers, land grants, forts and military reservations, early settlements and towns, railroading, ferries, aerial tramways, flumes, canals, transportation, agriculture, fish hatcheries, copper mining, and the creation of Shasta Dam, Keswick Dam and the Central Valley Project.

HIST 178 LOCAL HISTORY OF TEHAMA COUNTY – 3 Units (P/NP Option)
Class Hours: 54 lecture total
A survey of the history of Tehama County. The course will examine the historical development of the country including the impact of geography, native peoples, economic development as shown in lumbering, agriculture, tourism and manufacturing and the impact and development of transportation including river navigation, roads and highways, railroads and flight. Special topics such as significant individuals, organizations, rise and fall of towns and cities will also be considered.

HIST 187 ORAL HISTORY OF SHASTA COUNTY – 3 Units (P/NP Option)
Class Hours: 54 lecture total
This is a course in experiencing Shasta County history through oral responses and commentary – interviews – with living people, with an emphasis on events, major industries, places and people. The class will hear presentations from people who are experts in their particular field. Students will learn how to collect and record history in order to preserve and facilitate research in history.

HORTICULTURE

See AGEH and AGVIT for course listings

HOSPITALITY (HOSP)

HOSP 10 INTRODUCTION TO THE HOSPITALITY INDUSTRY - 3 Units (P/NP Option)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
Overview of structure and relationship of components within the hospitality and travel industry. Economic and employment impact and review of food service, lodging, resorts, recreation enterprises, attractions, cruise, destination bureaus, travel agencies and related operations. Focuses on orientation to customer service, cultural/economic trends and career opportunities. This course may be offered in a distance learning format.

HOSP 20 HOSPITALITY OPERATIONS MANAGEMENT – 3 Units (P/NP Option)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
Principles of organization, management, and decision models applied to the tasks and challenges of hospitality operations. Involves techniques of problem solving (including planning, organizing, staffing, directing and controlling operations) in areas of front office operations, housekeeping, personnel and security. The course also examines a systematic approach to front office procedures by detailing the flow of business through a lodging operation beginning with the reservation process and ending with check-out and settlement. This course may be offered in a distance learning format.

HOSP 35 COMPUTER APPLICATIONS IN THE HOSPITALITY INDUSTRY - 3 Units (P/NP Option)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
Provides an overview of the information needs of lodging properties and food service establishments; addresses essential aspects of computer systems, such as hardware, software, and generic applications; focuses on computer-based property management systems for both front office and back office functions; and focuses on computer-based restaurant management systems for both service-oriented and management-oriented functions. This course may be offered in a distance learning format.

HOSP 40 HUMAN RESOURCE MANAGEMENT IN THE HOSPITALITY INDUSTRY - 3 Units (P/NP Option)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
Practical approach to the problems of human resource management in the hospitality industry. Introduction to the personnel function; selection and placement of personnel; the role of supervision with emphasis on induction, training, communications, performance, appraisal, and leadership style. Study of age and salary administration; motivation; and discussion of union-management relations. This course may be offered in a distance learning format.

HOSP 45 RESTAURANTS, HOTELS, AND LAWFUL MANAGEMENT – 2 Units
Class Hours: 36 lecture total (when offered in the Distance Education format, hours will total 108)
This course explores potential legal issues and pitfalls that might impact the hospitality industry. The course covers legislation, such as the Civil Rights Act of 1991 and other federal discrimination laws dealing with employment and sexual harassment, Occupational Safety and Health Administration (OSHA) regulations, the Family and Medical Leave Act of 1993, the Americans with Disabilities Act, the Hotel and Motel Fire Safety Act of 1990, antitrust regulations, the National Labor Relations Act, copyright music laws, tax laws, tip reporting regulations, telephone resale regulations, consumer protection laws, franchise regulations, and product liability laws.

This course is not intended to make the student a legal expert on the subject reviewed nor is it intended to be a substitute for the services or legal opinion of an attorney. Students will, however, be better able to recognize potential legal problems or potential lawsuits, which will assist them when consulting with an attorney on strategies to prevent legal issues from becoming more serious in their hospitality organization. This course may be offered in a distance learning format.

HOSP 50 HOSPITALITY MARKETING, SALES AND ADVERTISING - 3 Units (P/NP Option)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
Application of marketing principles and techniques in the hospitality industry. Emphasis on developing an understanding of consumers and using that knowledge to provide value and create consumer satisfaction while meeting financial goals. This course will also focus on practical sales techniques, proven approaches to selling to targeted markets, and advertising's role in sales. This course may be offered in a distance learning format.

HOSP 60 HOSPITALITY AND FINANCIAL MANAGEMENT - 3 Units (P/NP Option)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course focuses on the generation and analysis of quantitative information for the purpose of planning, control and decision-making by managers at various levels in hospitality industry operation. Emphasis is placed on the need for and use of timely and relevant information as a vital tool in the management process. Also examines accounting functions to support hospitality management analysis. Special attention on: internal controls, cost-volume profit relationships, relevant costs for special decisions, flexible budgets, profit centers and tax implications of decisions. This course may be offered in a distance learning format.

HOSP 65 HOSPITALITY SUPERVISION – 3 Units (P/NP Option)
Class Hours: 54 lecture (when offered in the Distance Education format, hours will total 162)
This course offers insight into the various aspects of supervision in the hospitality industry. Supervisory roles, responsibilities, and essential managerial skills shall be discussed. The goal of the course is to equip students with the necessary authoritative and decision-making skills to be used in the workplace. This course may be offered in a distance learning format.

HOSP 94 HOSPITALITY WORKSITE LEARNING – 1-4 Units
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

HOSP 97 SPECIAL TOPICS IN HOSPITALITY - .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in hospitality. A different topics will be addressed each time the class is taught and will be listed in the schedule of classes. Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

HOSP 98 SPECIAL LAB TOPICS IN HOSPITALITY - .5-2 Units (P/NP Option)
Class Hours: 27-108 lab total
This course is designed to give students an opportunity to explore a variety of activities dealing with changing topics/knowledge in hospitality. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

HUMAN SERVICES (HUSV)

HUSV 94 HUMAN SERVICES WORKSITE LEARNING - 1-4 Units
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

HUSV 130 PRINCIPLES AND PRACTICES OF RESIDENTIAL CARE COUNSELORS - 3 Units
Class Hours: 54 lecture total
A study of the principles and practices of child care. Research theories identifying developmental planning, developmental needs, separation, cottage life, discipline, group process and the job. Concepts will be identified with practical applications and implications for use in the child care setting.

HUSV 131 CRISIS MANAGEMENT – 3 Units
Class Hours: 54 lecture total
A study of interventions and techniques utilized to provide positive and effective behavior management in residential and acute care setting.

HUSV 132 INTRODUCTION TO MENTAL DISORDERS - 3 Units
Class Hours: 54 lecture total
A course of study to develop a working knowledge of mental disorders, particularly as described by Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition.

HUSV 133 RESIDENTIAL CARE REGULATIONS - 3 Units
Class Hours: 54 lecture total
An in depth view and working knowledge of licensing of Community Care Facilities. The counselor's role as upholder of regulations as defined in Title 22, Division 6, Community Care Act.

HUSV 134 RESIDENTIAL CARE PRACTICUM SEMINAR - 2 Units
Class Hours: 36 lecture total
Explore the actual working experiences of counselors working with individuals in residential care. Students will be assisted in converting classroom experience and knowledge into usable, practical skills for the work place.

HUSV 135 COUNSELING & COMMUNICATION IN RESIDENTIAL CARE - 3 Units
Note: This course will not train someone to do counseling
Class Hours: 54 lecture total
Designed for persons working or wanting to work in residential care facilities. It will provide an overview of basic communication and counseling skills and theories practiced in residential care facilities. Concepts will be identified and practical applications used to help the student develop an understanding of counseling and communication techniques.

HUSV 139 CHILD ABUSE PREVENTION - 2 Units
Class Hours: 36 lecture total
Designed for persons who work with children placed in care. It is particularly applicable for residential care workers (counselors) who are responsible for the safety and protection of children on a day-to-day basis. The course work will emphasize the "how to" rather than the "why." It will concentrate on abuse detection, reporting, prevention, communication, and crisis management.

HUMANITIES (HUM)

A series of interdisciplinary courses designed to meet Humanities General Education requirements for Transfer and the Associate in Arts Degree. Courses in the Fine Arts, Literature and Philosophy also meet this requirement. See a complete listing of courses in the current College class schedule.

HUM 2 EXPLORING THE HUMANITIES - 3 Units
Class Hours: 54 lecture total
This course is designed to explore the humanities by examining expression of human values, ideas, concerns, and experience through the arts, literature, media and the social sciences. The reading of important works in the humanities, written analysis, and attendance at selected performances are major requirements of this course.

HUM 4 HUMANITIES THROUGH THE FILM - 3 Units (P/NP Option)
Class Hours: 54 lecture total
An examination of the motion picture as an art form. Films from the silent era through contemporary works will be examined in order to analyze and appreciate them from philosophical, historical, literary, aesthetic and cultural perspectives.

HUM 70 EXPLORING CONTEMPORARY TELEVISION – 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 190 or English Placement Level 6 or higher
Class Hours: 54 lecture total
This course is designed to explore the effect that television has had on contemporary culture, with regard to language, art, history, and aesthetics. The changing content of the television medium and its influence on society will be examined through the humanities perspective.

HUM 304 ADVENTURES IN THE PERFORMING ARTS – 0 Units
Class Hours: 3-54 lecture total
Informal exploration of personalities and works in symphonic and chamber music, opera, modern drama, the American musical, and films, designed to promote increased personal enjoyment of these forms of artistic expression.

INDEPENDENT STUDY (IS)

IS 99/199 INDEPENDENT STUDY – .5-2 Units
Class Hours: 27 hours for each ½ unit
Independent study provides a forum for advanced work in a given field of study. A student may contract with a full-time instructor to do independent study in a specific subject area in which he/she has exhausted the regular curricular offerings. For transfer level courses, the student must have a declared major or already possess a degree and have completed a minimum of 12 transfer units at Shasta College. For non-transfer level courses, the student has completed a minimum of 12 units at Shasta College. Note: Any combination of these courses may be repeated three times for a total of four enrollments or a maximum of four independent study units.

INDUSTRIAL TECHNOLOGY (INDE)

INDE 1 CAREER PLANNING FOR INDUSTRIAL TECHNOLOGY - 1 Unit
Class Hours: 18 lecture total
Career opportunities and training requirements in automotive, heavy duty diesel and welding will be examined. Students will be assisted in identifying career opportunities and developing career goals. This class is required of all auto, diesel, and welding majors.

INDE 101 INDUSTRIAL TRADE BASICS - 3 Units
Class Hours: 54 lecture total
The course provides an overview of basic skills required for individuals seeking entry-level employment in industrial occupations. The subjects covered include workplace safety and regulations, hand and power tools, basic rigging, introduction to blueprints, and an overview of soft skills related to effective communications and employability requirements necessary for sustainable employment.

APPRENTICESHIP TRAINING

These classes are for apprentices as well as any person interested in any of the below listed trade areas as a career, and is supervised by the Department of Apprenticeship Standards, State of California. This course is not intended for the student who is interested in any of the below listed trade areas as an avocation. The complete course is ten semesters in duration. A student must consult with the College Apprenticeship Coordinator prior to enrolling.

INDE 161 ELECTRICITY - 2 Units (P/NP Option)
Class Hours: 18 lecture/54 lab total
The course is for electrical apprentices as well as any person interested in the electrical trades. The course is supervised by the Department of Apprenticeship Standards, State of California, and is not intended for the student who is interested in the electrical trade as an avocation. Course contains related technical instruction, supplementary to the apprentice's on-the-job training, beginning with knowledge of the trade, safety, related mathematics and basic processes and progressing through ten semesters (INDE 162, INDE 163) of related instruction. A student must consult with the College Apprenticeship Coordinator prior to enrolling. Note: This course may be repeated three times for a total of four enrollments since course content varies and skills are enhanced by supervised repetition and practice.

INDE 162 ELECTRICITY - 2 Units (P/NP Option)
Prerequisite: A grade of C or higher in four semesters of INDE 161
Class Hours: 18 lecture/54 lab total
INDE 162 is a continuation of the material taught in INDE 161. The course is for electrical apprentices as well as any person interested in the electrical trades. The course is supervised by the Department of Apprenticeship Standards, State of California, and is not intended for the student who is interested in the electrical trade as an avocation. A student must consult with the College Apprenticeship Coordinator prior to enrolling. Note: This course may be repeated three times for a total of four enrollments since course content varies and skills are enhanced by supervised repetition and practice.

INDE 163 ELECTRICITY - 2 Units (P/NP Option)
Prerequisite: A grade of C or higher in four semesters of INDE 162
Class Hours: 18 lecture/54 lab total
INDE 163 is a continuation of the material taught in INDE 162. The course is for electrical apprentices as well as any person interested in the electrical trades. The course is supervised by the Department of Apprenticeship Standards, State of California, and is not intended for the student who is interested in the electrical trade as an avocation. A student must consult with the College Apprenticeship Coordinator prior to enrolling. Note: This course may be repeated one time for a total of two enrollments since course content varies and skills are enhanced by supervised repetition and practice.

INTERDISCIPLINARY STUDIES - See NSCI

JAPANESE (JAPN)

Two years of high school foreign language with grades of "C" or better is equivalent to one semester of foreign language at Shasta College.

JAPN 1 ELEMENTARY JAPANESE - 5 Units (P/NP Option) (CAN# JAPN 2) (CAN# JAPN SEQ A)
Class Hours: 90 lecture total
This course is designed to give the student training in pronunciation, essentials of grammar, reading, writing, and speaking. The student is also introduced to the customs and culture of the Japanese people.

JAPN 2 ELEMENTARY JAPANESE - 5 Units (P/NP Option) (CAN # JAPN 4) (CAN# JAPN SEQ A)
Prerequisite: A grade of C or higher in JAPN 1 or Foreign Language Placement Level 2 or higher
Class Hours: 90 lecture total
This course is a continuation of JAPN 1. Greater emphasis is placed on writing and the writing system in JAPN 2. Students will learn 90 Kanji characters. Further Japanese culture, history and traditions are provided.

JAPN 3 INTERMEDIATE JAPANESE - 5 Units (P/NP Option) (CAN # JAPN 8) (F/I)
Prerequisite: A grade of C or higher in JAPN 2 or Foreign Language Placement Level 3 or higher
Class Hours: 90 lecture total
This course will give the student higher level language skills necessary to function in an adult environment. Great emphasis is placed on learning how to read and write a number of Kanji characters, and understanding Japan and its people through further Japanese culture, history, life and traditions.

JAPN 4 INTERMEDIATE JAPANESE - 5 Units (P/NP Option) (CAN# JAPN 10)
Prerequisite: A grade of C or higher in JAPN 3 or Foreign Language Placement Level 4
Class Hours: 90 lecture total
This course builds on the higher level language skills acquired in JAPN 3 with greater emphasis on the linguistic diversity needed to function in an adult environment. Emphasis will be on learning to read and write an additional 150 Kanji characters. Stress is placed on Japanese culture.

JAPN 19 JAPANESE CONVERSATION 1 - 2 Units (P/NP Option)
Prerequisite: A grade of C or higher in JAPN 1 or Foreign Language Placement Level 2
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 18 lecture/54 lab total
Intense practice in the spoken language. Course focuses on development of fluency by perfecting speech patterns, increasing vocabulary, and reinforcing pronunciation through simple sentence patterns, audio CDs, oral presentations, interactive communication in activities such as thematically centered conversations and conducting interviews. This course is for the practical use of Japanese. Cultural presentations will also be made through film, filmstrips, anime, music, TV programs, etc.

JAPN 20 JAPANESE CONVERSATION 2 - 2 Units (P/NP Option)
Prerequisite: A grade of C or higher in JAPN 19 or Foreign Language Placement Level 3
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 18 lecture/54 lab total
Continuation of JAPN 19. Further intense practice in the spoken language. Course focuses on development of higher fluency by perfecting speech patterns, increasing vocabulary, and reinforcing pronunciation through additional sentence patterns, audio CDs, oral presentations, interactive communication in activities such as thematically centered conversations and conducting interviews. This course is for more advanced practical use of Japanese. Further cultural presentations will also be made through film, filmstrips, anime, music, TV programs, etc.

JOURNALISM (JOUR)

JOUR 21 INTRODUCTION TO MASS COMMUNICATIONS - 3 Units (P/NP Option) (CAN # JOUR 4)
Class Hours: 54 lecture total
This course is designed principally as a survey of the mass media, including newspapers, magazines, radio, television, motion pictures, books, the Internet and new technologies. The course will include study of mass communication theories, the effect of new technologies on society and the history of mass communication media. Students will research and analyze current mass media phenomena and will produce a term paper reflecting their discoveries.

JOUR 24 NEWSPAPER PRODUCTION (formerly JOUR 24A/24BD) - 2 Units
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher, and ability to type 25 wpm
Class Hours: 18 lecture/54 lab total
Designed as a practicum in print production, primarily newspaper. Students will be required to work for a print publication, typically the college newspaper, the Lance. Instructional topics include advanced newswriting (first semester), principles of editing (second semester), publication design (third semester), and management issues (fourth semester). The two-hour instructional component is a mixture of lectures, discussion and group work. The lab component will include staff meetings for the college print production. Assessment in the course is based on mastery of the instructional content and quality of work done for a print publication. Students are required to turn in weekly work activity reports and keep files of their published work during the semester. Students who work for a print publication other than the Shasta College Lance must sign up for 1 to 2 units of worksite learning to be taken concurrently with JOUR 24. Note: This course may be repeated three times for a total of four enrollments, since course content varies and skills are enhanced by repetition and practice.

JOUR 27 NEWSWRITING AND REPORTING - 3 Units (P/NP Option) (CAN # JOUR 2)
Advisory: A grade of C or higher in ENGL 190 or English Placement Level 6, and ability to type 25 wpm
Class Hours: 54 lecture total
Instruction and practice in writing news stories, feature articles, journalistic interviews, critical reviews and editorials. Prepares students for writing and reporting in mass media environments including: newspapers, television and radio news organizations, magazines, public relations agencies, Internet news services and other telecommunications media.

JOUR 29 PHOTOJOURNALISM - 2 Units
Note: Students must furnish own camera, film and paper.
Class Hours: 18 lecture/54 lab total
Theory and practice of photography for the print media, including college publications and publicity. Picture-taking and and digital imaging procedures.

LEGAL ASSISTANT (LEGL)

LEGL 39 INTRODUCTION TO PARALEGALISM (formerly LEGL 139, BUSI 140) - 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This is an introductory course to the Legal Assistant program designed to familiarize the student with the basic principles and the nomenclature of various facets of the law. It includes an overview of legal terminology and classifications, legal ethics, sources of law, family law, probate, civil procedure and litigation, including the structure of the court system, torts, contracts, criminal law and procedure, and property and estate law. Required for Legal Assistant majors. This course may be offered in a distance learning format.

LEGL 40 LEGAL RESEARCH AND WRITING I (formerly LEGL 140, BUSI 141A) -3 Units
Prerequisite: A grade of C or higher in ENGL 190 or English Placement Level 6 or higher
Class Hours: 54 lecture total
Designed to familiarize the student with the basic tools of legal research in both Federal and California law, with emphasis on California materials. The student will learn how to locate and update relevant authorities, interpret and apply that authority to fact patterns, and put it into a usable form. The student will be introduced to drafting basic legal documents based upon the research conducted. Required for Legal Assistant majors.

LEGL 41 LEGAL RESEARCH AND WRITING II (formerly LEGL 141, BUSI 141B) - 3 Units
Prerequisite: A grade of C or higher in LEGL 40
Class Hours: 54 lecture total
Covers both legal research and legal writing skills. Students conduct legal research and prepare in-depth legal documents. Emphasis is on legal writing. Required for Legal Assistant majors.

LEGL 42 DISCOVERY (formerly LEGL 142, BUSI 142) - 3 Units
Prerequisite: A grade of C or higher in LEGL 44
Class Hours: 54 lecture total
A complete study of all aspects of civil discovery procedures used in preparing a case for trial. Emphasis will be placed upon document production, depositions, interrogatories, expert witnesses, requests for admissions and inspection demands. Required for Legal Assistant majors.

LEGL 43 REAL ESTATE LAW (formerly LEGL 143, BUSI 143) - 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course analyzes form and procedures of real property and studies the more common types of real estate transactions and conveyances, such as secured transactions, deeds, contracts and leases. Required for Legal Assistant majors. This course may be offered in a distance learning format.

LEGL 44 CIVIL PROCEDURES AND LITIGATION (formerly LEGL 144, BUSI 144) - 3 Units
Class Hours: 54 lecture total
An introduction to the legal system with emphasis given to understanding the practical aspects of litigation, and the proper procedures required by statutes and rules of court. The student will become familiar with all phases of court procedure, including venue, jurisdiction, pleadings, motions, appeals, and the proper means and forms by which matters are submitted to the court system. Required for Legal Assistant majors.

LEGL 45 TORTS (formerly LEGL 145, BUSI 145) - 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
Provides students with the study of substantive law of torts with emphasis on California law. Required for Legal Assistant majors. This course may be offered in a distance learning format.

LEGL 46 BANKRUPTCY PRACTICES (formerly LEGL 146, BUSI 146) - 2 Units
Class Hours: 36 lecture total (when offered in the Distance Education format, hours will total 108)
A comprehensive study of bankruptcy regulations, procedures, pleadings and forms. Recommended as an elective in the Legal Assistant program. This course may be offered in a distance learning format.

LEGL 47 CONTRACTS, EMPLOYMENT AND AGENCY (formerly LEGL 147, BUSI 147) - 2 Units
Class Hours: 36 lecture total
A study of the law related to contract and agency and the practical aspects of drafting contracts and agency employment agreements. Required for Legal Assistant majors.

LEGL 48 FAMILY LAW (formerly LEGL 148, BUSI 148) - 3 Units
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A study of the law and procedures in California related to marriage, domestic violence, legal separation, spousal and child support, community property and dissolution of the marriage. Emphasis is on preparation of documents for attorney review. Required for Legal Assistant majors. This course may be offered in a distance learning format.

LEGL 49 COMMERCIAL LAW (formerly LEGL 149, BUSI 149) - 2 Units
Prerequisite: A grade of C or higher in LEGL 47
Class Hours: 36 lecture total (when offered in the Distance Education format, hours will total 108)
Analyzes forms and procedures of commercial practices with particular emphasis on common sales and lease transactions, secured sales transactions, creditors' rights, and insurance. Required for Legal Assistant majors. This course may be offered in the distance learning format.

LEGL 50 BUSINESS ORGANIZATIONS (formerly LEGL 150, BUSI 170) - 2 Units
Class Hours: 36 lecture total (when offered in the distance Education format, hours will total 108)
Substantive and procedural law of basic business organizations, including sole proprietorships, partnerships, limited partnerships and corporations, with an emphasis on California law. Recommended as an elective in the Legal Assistant program. This course may be offered in a distance learning format.

LEGL 51 ESTATE PLANNING (formerly LEGL 151, BUSI 171) - 3 Units
Class Hours: 54 lecture total (when offered in the distance Education format, hours will total 162)
This course will familiarize the student with the terminology of estate planning, explore the various devices for transfer of estates, including wills, trusts, intestacy, gifts, insurance and annuities, and joint tenancy, examine the impact of taxes and administrative costs on planning, and review adjuncts of the planning process, such as durable powers of attorney, directives to physician and anatomical gifts. Recommended as an elective in the Legal Assistant program. This course may be offered in a distance learning format.

LEGL 52 COLLECTIONS AND JUDGMENTS (formerly LEGL 152, BUSI 172) - 2 Units
Prerequisite: A grade of C or higher in LEGL 44
Class Hours: 36 lecture total (when offered in the distance Education format, hours will total 108)
Designed to acquaint the student with the procedures available for obtaining collection on an existing money judgment. Topics will include issuance of the Writ of Execution, Levy, Wage Garnishment and Claims of Exemption. In addition, discussion of pre-judgment collection remedies shall be presented including State and Federal Fair Debt Collection Practices Act. This course may be offered in a distance learning format.

LEGL 53 PROBATE (formerly LEGL 153, BUSI 173) – 3 Units
Prerequisite: A grade of C or higher in LEGL 44
Class Hours: 54 lecture total (when offered in the distance Education format, hours will total 162)
The course will explore various methods of administering decedents' estates, the jurisdiction of the probate court, the process of estate administration and distribution, estate litigation and will contests. Appropriate use of the California Probate Code and probate forms is emphasized. The course will provide an overview of conservatorship and guardianships. Required for Legal Assistant majors. This course may be offered in a distance learning format.

LEGL 55 TECHNIQUES OF INTERVIEW AND INVESTIGATION (formerly LEGL 155, BUSI 175) - 2 Units
Class Hours: 36 lecture total
A study of basic communication skills and their application to developing efficient and thorough interview techniques for use in a law office setting. Development of checklists and the orderly assembling and collection of information necessary to assist in the evaluation of the case and issues. Recognition of the ethical considerations involved in the gathering of information and interviewing situations. Recommended as an elective in the Legal Assistant program.

LEGL 56 CRIMINAL LAW AND PROCEDURE (formerly LEGL 156, BUSI 177) - 3 Units
Class Hours: 54 lecture total (when offered in the distance Education format, hours will total 162)
This course addresses various criminal offenses; the criminal court system; criminal investigation and prosecution; discovery and investigation; criminal pretrial motions, trial preparation; trial procedures; post-trial motions and relief. Recommended as an elective in the Legal Assistant program. This course may be offered in a distance learning format.

LEGL 58 AMERICAN INDIAN LAW (formerly LEGL 158) – 2 Units
Class Hours: 36 lecture total
The class is designed for familiarize the student with the nature and scope of American Indian Law. The student will be introduced to the structures and laws that govern Indian tribal governments on Indian tribal land. Students will be introduced to Federal Indian Law including the Indian Civil Rights Act and the Indian Child Welfare Act. Tribal law topics covered include tribal constitutions, the tribal legislative process, the role of tribal traditions and customs, tribal courts, sources of tribal law, limitations on tribal law, and the application of tribal law in tribal courts.

LEGL 94 LEGAL ASSISTANT WORKSITE LEARNING – 1-4 Units
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

LEGL 97 SPECIAL TOPICS IN LEGAL ASSISTANT – .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in legal assistant. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

LEGL 98 SPECIAL LAB TOPICS IN LEGAL ASSISTANT – .5-2 Units (P/NP Option)
Class Hours: 27-108 lab total
This course is designed to give students an opportunity to explore a variety of activities dealing with changing topics/knowledge in legal assistant. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

MARKETING (MKTG)

See Also: ACCT, BUAD, MIS, OAS, and REAL

MKTG 70 SALES (formerly BUSI 70) - 3 Units (P/NP Option)
Class Hours: 54 lecture total
Study of the fundamental problems, practices, and techniques of the salesperson. The course covers both retail and direct selling techniques including prospecting, pre-approach, demonstration/ presentation, handling objections, closing, follow-up, and time management. Students will be required to make a minimum of one sales presentation in class.

MKTG 72 ADVERTISING (formerly BUSI 72) - 3 Units (P/NP Option)
Class Hours: 54 lecture total (when offered in the Distance Education format, hour will total 162)
This course is designed to help the student develop proficiency in handling everyday advertising problems. Covers national and local retailing advertising with major emphasis on local advertising. Topics include budgeting, media selection, layout, copy writing, target identification, setting objective, planning, and desktop publishing availability. This course may be offered in a distance learning format.

MKTG 74 PRINCIPLES OF MARKETING (formerly BUSI 74) - 3 Units (P/NP Option)
Class Hours: 54 lecture total (when offered in the Distance Education format, hour will total 162)
This course is designed to help the student understand everyday marketing problems in organizations. Topics include changing role of marketing, the marketing mix, consumer behavior, sales, advertising, market research, middlemen, retailing, product development, and marketing plans. This course may be offered in a distance learning format.

MKTG 76 EVENT MARKETING - 3 Units
Class Hours: 54 lecture total
Event Marketing is designed to provide students with the learning opportunity to plan and implement an actual marketing strategy for a local business. The strategy is planned, designed and directed by students, with the assistance of a marketing instructor, an established marketing consultant and a local business manager. Students will be required to research the market for the local business manager, develop a marketing promotional event, implement the event with a budget, and finally evaluate the results of the marketing strategy. This course may also be considered as an internship.

MKTG 94 MARKETING WORKSITE LEARNING - 1-4 Units
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

MKTG 97 SPECIAL TOPICS IN MARKETING - .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in marketing. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

MKTG 98 SPECIAL LAB TOPICS IN MARKETING – .5-2 Units (P/NP Option)
Class Hours: 27-108 lab total
This course is designed to give students an opportunity to explore a variety of activities dealing with changing topics/knowledge in marketing. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

MKTG 176 RETAIL MANAGEMENT (formerly BUSI 176) - 3 Units (P/NP Option)
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A course designed to develop student proficiency in the diverse aspects of retailing. The course includes specific areas of study, such as: store site location, store layout, product line selection, buying pricing, selling, advertising and financial management. This class is designed for those going into retail as well as those students planning to enter business that deal with retail merchants, i.e., wholesalers, advertising media, insurance agencies, accounting firms and other service areas. This course may be offered in a distance learning format.

MATHEMATICS (MATH)

MATH 2 PRECALCULUS – 5 Units (CAN # MATH 16)
Prerequisite: A grade of C or higher in MATH 102, or Math Placement Level 4 or higher
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Class Hours: 90 lecture total (when offered in the Distance Education format, hours will total 270)
A course to prepare the student for MATH 3A (Calculus) utilizing function graphing technology. The content includes linear, polynomial, rational, logarithmic, exponential and trigonometric functions, conic sections, matrices, parametric equations, and their applications. This course may be offered in a distance learning format.

MATH 3A CALCULUS 3A - 4 Units (CAN# MATH 18) (MATH SEQ B) (MATH SEQ C)
Prerequisite: A grade of C or higher in MATH 2, or a grade of C or higher in both MATH 10 and MATH 13, or Math Placement Level 5 or higher
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Class Hours: 72 lecture total (when offered in the Distance Education format, hours will total 216)
First semester of a four-semester sequence covering differentiation of single variable functions, applications of the derivative, introduction to integration, and introduction to differential equations. This course may be offered in a distance learning format.

MATH 3B CALCULUS 3B - 4 Units (CAN# MATH 20) (MATH SEQ B) (MATH SEQ C)
Prerequisite: A grade of C or higher in MATH 3A or Math Placement Level 6 or higher
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Class Hours: 72 lecture total (when offered in the Distance Education format, hours will total 216)
This course continues and extends the discussion of differentiations and integration begun in MATH 3A. Students will be introduced to properties of finite and infinite series. This course may be offered in a distance learning format.

MATH 4A CALCULUS 4A - 4 Units (CAN# MATH 22) (MATH SEQ C)
Prerequisite: A grade of C or higher in MATH 3B, or Math Placement Level 7 or higher
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Class Hours: 72 lecture total
This course covers vectors in two and three dimensions, partial differentiation, multiple integrals, line integrals, divergence, gradient, curl, Stoke's and Green's Theorems.

MATH 4B CALCULUS 4B - 4 Units (CAN# MATH 24)
Prerequisite: A grade of C or higher in MATH 3B, or Math Placement Level 7
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Class Hours: 72 lecture total
A course in ordinary differential equations covering first and second order differential equations, with applications; Laplace transforms; series solutions at an ordinary point; matrices and linear algebra; and systems of linear differential equations.

MATH 8 FINITE MATHEMATICS - 3 Units (CAN # MATH 12)
Prerequisite: A grade of C or higher in MATH 102, or Math Placement Level 4 or higher
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Class Hours: 54 lecture total
The course covers sets, matrices, and systems of equations and inequalities; linear programming; combinatorial techniques, introduction to probability; and mathematics of finance. The course is intended to provide (along with MATH 9) the mathematical skills needed for entry into upper division Business, Social, and Behavioral Science courses.

MATH 9 SURVEY OF CALCULUS - 4 Units (CAN # MATH 30)
Prerequisite: A grade of C or higher in MATH 102, or Math Placement Level 4 or higher
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Class Hours: 54 lecture/72 lab total
A course in analytical geometry, differential and integral calculus for students whose majors require a short course in calculus without the depth offered in MATH 3A.

MATH 10 PLANE TRIGONOMETRY - 3 Units (CAN# MATH 8)
Prerequisite: A grade of C or higher in MATH 102, or Math Placement Level 4 or higher
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Class Hours: 54 lecture total
A basic course in trigonometry. Topics covered include angles, units of measurement, trigonometric functions, solutions of right and oblique triangles, identities, graphs, vectors and polar coordinates. Numerical methods and problem solving using a graphic calculator are emphasized.

MATH 11 PATTERNS OF MATHEMATICAL THOUGHT - 3 Units
Prerequisite: A grade of C or higher in MATH 102 or Math Placement Level 4 or higher
Class Hours: 54 lecture total
A one-semester survey course emphasizing mathematical reasoning. Various applications of mathematics are covered with topics selected from: Geometry, Statistics, Management Science, Number Theory, Social Science, and Computer Science. The course is designed to give students an understanding of some of the vocabulary and methods of mathematics with a focus on ideas.

MATH 13 COLLEGE ALGEBRA (formerly MATH 1) - 3 Units
Prerequisite: A grade of C or higher in MATH 102 or Math Placement Level 4 or higher
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course introduces functions and function algebra. The main focus is on linear, polynomial, rational, logarithmic and exponential functions. Students will learn algebraic techniques, modeling techniques and technology-based techniques for solving equations involving these functions and for investigating the graphs of these functions. This course may be offered in a distance learning format.

MATH 14 INTRODUCTION TO STATISTICS - 3 Units (CAN# STAT 2)
Prerequisite: A grade of C or higher in MATH 102, or Math Placement Level 4 or higher
Advisory: A grade of C or higher in ENGL 190 or English Placement Level 6 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
An introductory course in statistics designed to show the role of modern statistical methods in the process of decision making. Concepts are introduced by example rather than by rigorous mathematical theory. The following topics will be covered: measures of central tendency and dispersion, regression and correlation, probability, sampling distributions including the normal, t, and chi-square, statistical inference using confidence intervals and hypotheses testing. This course may be offered in a distance learning format.

MATH 17 CALCULUS APPLICATIONS FOR SOCIAL AND LIFE SCIENCES - 4 Units
Prerequisite: A grade of C or higher in MATH 3a, or Math Placement Level 6 or higher
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Class Hours: 72 lecture total (When offered in the Distance Education format, hours will total 216)
A course in analytical geometry, differential and integral calculus for students whose majors require a short course in calculus without the depth offered in MATH 3A. This course may be offered in a distance learning format.

MATH 41A CONCEPTS OF ELEMENTARY MATHEMATICS - 3 Units (CAN MATH # 4)
Prerequisite: A grade of C or higher in MATH 102, or Math Placement Level 4 or higher
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Note: This course is valuable for students intending to become elementary school teachers.
Class Hours: 54 lecture total
Survey of the elements of mathematics usually taught in the elementary schools. Emphasis is on development of the real number system by intuitive and semi-rigorous methods, discussion of sets, axiomatics, systems of numeration, arithmetic processes, inductive and deductive reasoning and problem solving.

MATH 41B CONCEPTS OF ELEMENTARY MATHEMATICS - 3 Units
Prerequisite: A grade of C or higher in MATH 102 or Math Placement Level 4 or higher (MATH 41A is not a prerequisite for MATH 41B)
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Note: This course is valuable for students intending to become elementary school teachers.
Class Hours: 54 lecture total
Survey of the elements of mathematics usually taught in the elementary grades from an advanced standpoint. Emphasis is on geometry, probability and statistics.

MATH 100 TECHNICAL APPLICATIONS OF MATHEMATICS - 3 Units
Prerequisite: A grade of C or higher in MATH 240, or Math Placement Level 2 or higher
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher.
Class Hours: 54 lecture total
This course blends mathematical topics with practical applications. Emphasis will be placed on the use of mathematics in solving problems, drawn from various vocational fields. Topics in arithmetic, algebra, geometry, and right-triangle trigonometry will be covered. MATH 100 provides a practical, hands-on means of satisfying the A.S. degree's Math Competency Requirement.

MATH 101 BASIC ALGEBRA - 3 Units
Prerequisite: A grade of C or higher in MATH 240, or Math Placement Level 2 or higher
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A first course in algebra designed to cover the basic concepts and operations of algebra including solving linear equations, exponent laws, arithmetic and factoring of polynomials, and graphing linear equations in two variables. Applications are encountered throughout the course. This course may be offered in a distance learning format.

MATH 102 INTERMEDIATE ALGEBRA - 4 Units
Prerequisite: A grade of C or higher in MATH 101 or Math Placement Level 3 or higher
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Class Hours: 72 lecture total (when offered in the Distance Education format, hours will total 216)
A second course in algebra at the developmental level. This course prepares the student to take a baccalaureate level general education mathematics course. Topics covered include equations and functions of the following types: quadratic, exponential, logarithmic, rational, and radical. The course also covers systems of linear equations and inequalities in two variables and quadratic inequalities in one variable. Applied problems are encountered throughout the course. This course may be offered in a distance learning format.

MATH 110 ESSENTIAL MATH (FOR THE ASSOCIATE DEGREE) – 3 Units
Prerequisite: A grade of C or higher in MATH 101 or MATH 100 or Math Placement Level 3 or higher
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course is designed to provide a survey of mathematical topics that are appropriate for students pursuing an Associate Degree. Topics included are number sense, algebra, geometry, probability and statistics. This course may be offered in a distance learning format.

MATH 150 MATH STUDY SKILLS (formerly GS 100) – 1 Unit (P/NP Option)
Note: Students do not necessarily need to be concurrently enrolled in a math class.
Class Hours: 18 lecture total
This course is designed to assist students in learning mathematics through the development of successful study skills and exam-taking methods. This course addresses learning styles, how to read a math book, completing homework assignments, how to take notes and exams, strategies for solving word problems, and techniques for overcoming math anxiety.

MATH 197 SPECIAL TOPICS IN MATHEMATICS - .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with mathematics. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for mathematics majors; open to anyone with an interest in the topic.
Note: This course may be repeated three times for a total of four enrollments.

MATH 220 BASIC MATHEMATICS - 3 Units
Advisory: A grade of C or higher in ENGL 260 or English Placement Level 3 or higher
Class Hours: 54 lecture total
A course covering the basic skills of addition, subtraction, multiplication and division of whole numbers, fractions, and decimals, with word problem applications. Subjects also taught include prime numbers, order of operations, ratios, and proportions.

MATH 240 PRE-ALGEBRA - 3 Units
Prerequisite: A grade of C or higher in MATH 220, or Math Placement Level 1 or higher
Advisory: A grade of C or higher in ENGL 260 or English Placement Level 3 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course provides a transition from arithmetic to algebra, covering a review of arithmetic operations; introducing the concepts of variables and signed numbers; the properties of addition, subtraction, multiplication and division containing variables; solution of equations and word problems. This course prepares the student for entry into MATH 101, 110, 100 and/or BUAD 106. This course may be offered in a distance learning format.

MATH 382 MATHEMATICS WORKSHOP - 0 Units
Class Hours: TBA
A non-credit course offered to help students overcome mathematics learning problems and achieve mathematical success. Support is provided by tutoring by instructors, advanced math students trained in effective tutoring techniques and support materials. This course is available to any student enrolled in any regular math class.

MICROBIOLOGY (MICR)

MICR 1 MICROBIOLOGY - 5 Units (CAN # BIOL 14)
Prerequisite: A grade of C or higher in one of the following courses: CHEM 1A, 2A, or CHEM 2B
Class Hours: 54 lecture/108 lab total
This course is an introduction to microorganisms, including bacteria, viruses, protozoans, fungi, and helminths. Topics covered include the general properties, characteristics, and classification of microbes, identification and control, genetics and biotechnology, physiology, metabolism, and ecology. Also discussed are immunity and the medical impact of microbial diseases.

MUSIC (MUS)

All music theory and literature courses: ENGL 190 eligibility. All other music classes have specific musical performance ability requirements which are listed in each course description.

MUS 1 MUSIC FUNDAMENTALS - 3 Units (P/NP Option)
Advisory: Concurrent enrollment in MUS 22
Class Hours: 54 lecture total
A course in music theory for the general student. Class includes pitch notation, melody, rhythm and meter, scales and modes, intervals, keys and key signatures, triads, chords, sight singing and melodic dictation. Course is designed for Elementary Education majors and Pre-Music Core Program. Some math, especially fractions, is necessary. A computerized tutorial is included in the text, although not required. Piano skills are helpful in maximizing learning in this course.

MUS 2 DIATONIC HARMONY AND MUSICIANSHIP - 5 Units (P/NP Option) (CAN # MUS 2) (CAN# MUS SEQ A)
Prerequisite: A grade of C or higher in MUS 1
Class Hours: 72 lecture/54 lab
A study of scales and modes, key signatures and intervals. Anatomy of harmony and melody. Four-part harmonic writing, basic progression and integration of both with ear training and sight-singing. Analysis of music will be concurrent with materials studied. Course is designed for the Music Core Program and is the first course of the four semester music theory sequence required to satisfy the Music Core Program and lower division music transfer. This course utilizes a lab period to build and apply keyboard skills. Course may be challenged and is transferable.

MUS 3 DIATONIC HARMONY AND MUSICIANSHIP - 5 Units (P/NP Option) (CAN# MUS 4) (CAN# MUS SEQ A)
Prerequisite: A grade of C or higher in MUS 2
Class Hours: 72 lecture/54 lab
This course is designed for the Music Core Program. It is the second course of the four-semester Music Theory Sequence required to satisfy the Music Core Program and lower division music transfer, may be challenged and is transferable. Course content includes idiomatic work from selected historical periods with a critical approach to stylistic analysis. All diatonic chords through the introduction of the V7, the first truly chromatic chord will be studied. The syntax of all diatonic chords and their hierarchy in the harmonic language will be learned, along with all inversions. The course work utilizes a lab period to build and apply keyboard skills.

MUS 4 CHROMATIC HARMONY - 5 Units (P/NP Option)
Prerequisite: A grade of C or higher in MUS 3
Class Hours: 72 lecture/54 lab
This is the third course of the four semester music theory sequence required to satisfy the Music Core Program and lower division music transfer, may be challenged and is transferable. It must be taken for a grade by music majors. Course content includes modulation, pivot chords, chromatic chords containing tritones, secondary dominants, all sevenths, including minor, major, half diminished, fully diminished, 9th chords, major and minor 11th and 13th chords, with and without tritones. Chromatic alterations as used during the 18th and 19th Centuries. Continuation of 2 and 3 part forms, Neapolitan 6th Chords, Augmented 6th Chords, altered dominants and leads into the concept of Sonata-Allegro form. The course work utilizes a lab period to build and apply keyboard skills.

MUS 5 TWENTIETH CENTURY HARMONY - 5 Units (P/NP Option)
Prerequisite: A grade of C or higher in MUS 4
Class Hours: 72 lecture/54 lab
Analytical techniques: development of critical judgments about 20th Century styles. A study of the composition techniques and harmonic practices of the 20th century. This includes the whole-tone scale, church modes, pentatonic scale, 7th, 9th, 11th, 13th chords, chords of omission and addition, non-tertian chords, pan-diatonicism, chord cluster, meter changing, 12-tone techniques and other modern developments. The course may culminate in the writing of a composition, probably theme and variations. This course utilizes a lab period to build and apply keyboard skills. This is the fourth semester music theory sequence required to satisfy the Music Core program and lower division music transfer.

MUS 7 BEGINNING ARRANGING & SONGWRITING - 3 Units
Prerequisite: A grade of C or higher in MUS 1
Class Hours: 54 lecture total
A course that covers the basic elements of arranging in all styles of popular music, but particularly in jazz, while exploring techniques that will assist the student in songwriting. The course gives the student the opportunity to become familiar with chord symbols, open and closed-block voicing of triads through thirteenth chords, instrumental transposition, rhythmic and articulation considerations, melodic embellishments, and the jazz and rock rhythm sections.

MUS 10 MUSIC APPRECIATION - 3 Units (P/NP Option) (CAN # MUS 8)
Class Hours: 54 lecture total
A survey course that covers the characteristics of sound, sources of musical sounds and media, instruments, voices, texture, forms, program and dramatic music, vocal and instrumental music, sacred and secular music, folk, popular, jazz, music of other cultures, and historical music from primitive times to the present. Emphasis is placed on listening to music and attending performances and rehearsals. Recommended for AA Humanities elective, CSU General Ed arts elective, and Pre-Music Program.

MUS 11 HISTORY OF JAZZ AND ROCK - 3 Units
Class Hours: 54 lecture total
A survey course that covers the characteristics of jazz forms, including ragtime, dixieland, blues, swing, progressive jazz and rock. Course gives the student the opportunity to become familiar with all of the various styles of jazz and provides an understanding of the social and technical influences that cause stylistic change. This course is designed to create an interest in music for the non-music major. Course is recommended for the Humanities elective.

MUS 12 INTRODUCTION TO COMPUTERS AND ELECTRONIC INSTRUMENTS IN MUSIC - 1.5 Units
Prerequisite: A grade of C or higher in MUS 1
Class Hours: 18 lecture/36 lab total
This course is an entry-level class designed to introduce the student to the basic elements and fundamental use of computers and electronic instruments in music. Course enrollment is open to music majors and non-music majors. Topics will include: computer and electronic music terminology and usage, synthesizers, samplers, synthesis methods, Musical Instrument Digital Interface (MIDI), audio gear, MIDI sequencers, click track, quantizing, multi-track recording, and various computer software including notation, sequencing, composing and performance software. The course will involve lecture and computer music laboratory settings. This course is introductory level and is not designed for intermediate or advanced study.

MUS 14 WORLD MUSIC - 3 Units
Class Hours: 54 lecture total
World Music is a global exploration of musical traditions of various representative world musical cultures and musical techniques in a variety of cultural contexts not included in the broad genre of European based art music.

MUS 20 BRASS (formerly MUS 20AB)- 1 Unit (P/NP Option)
Advisory: A grade of C or higher in MUS 1
Class Hours: 9 lecture/27 lab
A beginning course in the techniques of playing the trumpet, trombone, baritone, French horn, or tuba through the introduction of embouchure, breath, tone, pitch and timbre. Simple compositions, intervals, scales and articulation studies are used. Course recommended for Music Core Program. Note: this course may be repeated once for a total of two enrollments since skills are enhanced by supervised repetition and practice.

MUS 21 GUITAR (formerly MUS 21A/21B) - 1 Unit
Note: Students must provide their own instruments
Class Hours: 9 lecture/27 lab
A beginning course in the techniques of guitar, including basic chords, strums, finger-picking, and tuning. Guitar history and styles and music fundamentals are also presented. Course designed for Music Core Program. Note: This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.

MUS 22 BEGINNING PIANO (formerly MUS 22A) - 1 Unit (P/NP Option)
Class Hours: 9 lecture/27 lab
A fundamental course in keyboard techniques (simple piano music, accompaniments, chords, scales, and exercises) and music fundamentals (notation, melody, harmony and rhythm). Designed for Elementary Education majors and Pre-Music Core Program.

MUS 23 INTERMEDIATE PIANO (formerly MUS 22BD) - 1 Unit (P/NP Option)
Prerequisite: A grade of C or higher in MUS 22
Class Hours: 9 lecture/27 lab
A developmental course in keyboard techniques (simple piano music, accompaniments, chords, scales, and exercises) and music fundamentals (notation, melody, harmony and rhythm). Course is designed for Elementary Education majors and Pre-Music Core Program. Note: This course may be repeated twice for a total of three enrollments since skills are enhanced by supervised repetition and practice.

MUS 24 PERCUSSION - 1 Unit
Class Hours: 9 lecture/27 lab
A beginning course on snare drum, which includes learning to play, count and write rhythm patterns in 4/4, 2/4, 3/4, and 6/8 time signatures through the study of the thirteen rudiments for the snare drum. The percussion family is studied by playing percussion ensemble compositions. Course is recommended for Music Core Program.

MUS 25 STRINGS (formerly MUS 25AB/25CD) - 1 Unit (P/NP Option)
Advisory: A grade of C or higher in MUS 1
Note: Instruments provided if available
Class Hours: 9 lecture/27 lab
A beginning course in violin, viola, violoncello and string bass organized to establish basic skills of tuning, pitch and tone production, both pizzicato and bowed, beginning in the first position until security in the frame of the hand and correct playing position is established. Elementary shifting first to third position on violins/violas. Normal and extended first position on the cello. Half and first position on string bass. Advanced positions and shifting on all instruments. Bowing techniques include on the string bowings, detache, linked, legato and mixed bowings when appropriate. Later study of off the string bowings, vibrato, special effects. The major goals of the course are to establish intermediate and advanced skills with sound pedagogy while playing representative string solo music, simple chamber music, duos, trios, quartets, and orchestra music with correct bowings and style. Note: This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.

MUS 28 WOODWINDS (formerly MUS 28A) - 1 Unit
Class Hours: 9 lecture/27 lab
A beginning course in the techniques of playing the flute, oboe, clarinet, bassoon and saxophone through the introduction of embouchure, breath, tone, pitch and timbre. Simple compositions, intervals, scales and articulation studies are used. Course recommended for Music Core Program. Note: This course may be repeated once for a total of two enrollments since skills are enhanced by supervised repetition and practice.

MUS 29 BEGINNING VOICE (formerly MUS 27A) - 1 Unit
Class Hours: 9 lecture/27 lab
A beginning course in the vocal technique, repertoire, state deportment, and performance. Course utilizes a variety of vocal genres to teach tone quality, breath control, posture, diction and interpretation. Class performances required. Course recommended for Music Core Program, Theatre Arts majors and Elementary Education majors.

MUS 30 INTERMEDIATE VOICE (formerly MUS 27B) - 1 Unit (P/NP Option)
Prerequisite: A grade of C or higher in MUS 29
Class Hours: 9 lecture/27 lab
An intermediate course in vocal technique and performance. Course utilizes a variety of vocal literature to teach tone quality, breath control, posture, lyric diction and interpretation. Class performances required. Course recommended for Music Core Program, Theatre Arts majors and Elementary Education majors.

MUS 31 CHAMBER CHOIR (formerly MUS 31AD) - 1 Unit
Limitation on Enrollment: Admission to this class will be by audition to determine performance ability. This course is a restricted elective for the Music certificate and Music AA Degree. Non-audition courses that fulfill this requirement: MUS 40 Concert Choir.
Class Hours: 54 lab total
Organized for advanced singers. Admission to the class will be by audition to determine performance capability. This course provides performance by solos, duets, trios, quartets and full ensemble. Literature is selected from all periods of music with the emphasis on madrigals. Field trips and performances are required. This course cannot be challenged, must be taken for a grade, and is transferable. Students are expected to progress in skill level to be able to master more advanced material. Note: This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.

MUS 33 JAZZ ENSEMBLE (formerly MUS 33AD) - 1 Unit
Class Hours: 54 lab total
Note: Field trips and performances are required.
This class offers experience in the study and performance of big band commercial and jazz arrangements. Note: This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.

MUS 35 VOCAL JAZZ ENSEMBLE (formerly MUS 35AD) - 1 Unit
Limitation on Enrollment: Admission to this class will be by audition to determine performance ability. This course is a restricted elective for the Music certificate and Music AA Degree. Non-audition courses that fulfill this requirement: MUS 40 Concert Choir.
Note: Field trips and performances are required
Class Hours: 54 lab total
Organized for students interested in singing jazz and commercial music. Note: This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.

MUS 39 CHAMBER MUSIC (formerly MUS 39AD) - 1 Unit
Limitation on Enrollment: Admission to this class will be by audition to determine performance ability. This course is a restricted elective for the Music certificate and Music AA Degree. Non-audition courses that fulfill this requirement: MUS 46 Community Band or MUS 25 Strings
Note: Field trips and performances are required.
Class Hours: 54 lab
A music activity course to study and perform literature composed for small music ensembles. Students must be proficient in music of a medium or higher grade of difficulty, either instrumentally or vocally, and should be able to sight read with some degree of fluency in order to perform more repertoire. Concurrent enrollment in a Large Ensemble is recommended. Note: This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.

MUS 40 CONCERT CHOIR (formerly MUS 40AD) - 1 Unit
Note: Field trips and performances are required.
Class Hours: 54 lab total
A performing mixed choir (S.A.T.B.) that sings a variety of music, both historical and contemporary. This course teaches fundamentals of reading choral music, using examples from choral literature. Note: This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.

MUS 41 SHASTA COLLEGE WOMEN'S ENSEMBLE – 1 Unit (P/NP Option)
Limitation on Enrollment: Admission to this class will be by audition to determine performance ability. This course is a restricted elective for the Music certificate and Music AA Degree. Non-audition courses that fulfill this requirement: MUS 40 Concert Choir
Note: Field trips and performances are required (SSA)
Class Hours: 54 lab total
A performing choir that sings choral works for women's chorus (SSA) from all musical period and styles. Works are selected from every era. Note: This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.

MUS 42 SHASTA COLLEGE COMMUNITY CHORALE (formerly MUS 42AD) - 1 Unit
Limitation on Enrollment: Admission to this class will be by audition to determine performance capability. This course is a restricted elective for the Music Certificate and Music AA Degree. Non-audition courses that fulfill this requirement: MUS 40 Concert Choir.
Note: Field trips and performances are required.
Class Hours: 54 lab total
A performing mixed choir (S.A.T.B.) that sings a variety of music, both historical and contemporary, with an emphasis on large choral forms such as oratorios and cantatas, accompanied by instruments. Note: Field trips and performances are required. This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.

MUS 43 SHASTA COLLEGE COMMUNITY SYMPHONY (formerly MUS 43AD) - 1 Unit (P/NP Option)
Limitation on Enrollment: Admission to this class is by audition to determine performance ability. This course is a restricted elective for the Music Certificate and Music AA Degree. Non-audition courses that fulfill this requirement: MUS 46 Community Band or MUS 25 Strings
Note: Field trips and performances are required
Class Hours: 54 lab total
A college/community symphony orchestra providing an opportunity for the students and community instrumentalists to perform standard and contemporary orchestral literature. Field trips and performances are required. All community groups rehearse evenings only. Note: This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.

MUS 44 SHASTA COLLEGE YOUTH SYMPHONY - .5-1 Unit (P/NP Option)
Limitation on Enrollment: Admission to this class will be by audition to determine performance capability. This course is a restricted elective for the Music Certificate and Music AA Degree. Non-audition courses that fulfill this requirement: MUS 46 Community Band or MUS 25 Strings
Note: Field trips and performances are required.
Class Hours: 27-54 lab total
A college and community based symphony orchestra for the training of young musicians. Provides an opportunity for them to perform standard and contemporary literature for younger musicians preparatory to participation in the Shasta College Community Orchestra (MUS 43). Field trips and performances are required. Note: This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.

MUS 45 WIND BAND (formerly MUS 45AD) - 1 Unit
Limitation on Enrollment: Admission to this class will be by audition to determine performance capability. This course is a restricted elective for the Music Certificate and Music AA Degree. Non-audition courses that fulfill this requirement: MUS 46 Community Band
Note: Field trips and performance are required.
Class Hours: 54 lab total
A course performing both standard and contemporary band literature. Field trips and performances are required. This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.

MUS 46 SHASTA COLLEGE COMMUNITY SYMPHONIC BAND (formerly MUS 46AD) - 1 Unit
Note: Field trips and performance are required.
Class Hours: 54 lab total
A course in performance techniques of both standard and contemporary band literature. Rehearses evenings only. Note: Field trips and performances are required. Note: This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.

MUS 47 SHASTA COLLEGE COMMUNITY JAZZ ENSEMBLE (formerly MUS 47AD) - 1 Unit
Limitation on Enrollment: Admission to this class will be by audition to determine performance ability. This course is a restricted elective for the Music Certificate and Music AA Degree. Non audition courses that fulfill this requirement: MUS 33 Jazz Ensemble.
Note: Field trips and performances are required.
Class Hours: 54 lab total
This class offers experience in the study and performance of big-band jazz arrangements. Rehearses evenings only. Note: Field trips and performances are required. Note: This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.

MUS 61 PERFORMANCE ANALYSIS (formerly MUS 61AD) - .5 Unit (P/NP Option)
Class Hours: 27 lab
A course in the experience of listening, analyzing and criticizing classical music performances in class and community. Applied Music students, local musicians and professional musicians perform and lecture. Required for Pre-Music Program and Music Core Program. Note: This course may be repeated three times for a total of four enrollments since skills are enhanced by supervised repetition and practice.

MUS 98 SPECIAL MUSIC TOPICS (formerly MUS 98AD) .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to study a variety of topics dealing with performance, musicology, changing knowledge and contemporary issues in the field of music. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for Music majors; open to anyone with an interest in the topic. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

MUS 120 VOCAL DEVELOPMENT - CLASSICAL – 1-2 Units (P/NP Option)
Limitation on Enrollment: Admission to this class will be by audition to determine performance ability.
Note: Field trips and performances are required. Students are expected to progress in skill level to be able to master more advanced material.
Class Hours: 1 Unit=9 lecture/27 lab; 2 Units=18 lecture/54 lab
This class provides the student with vocal techniques and repertoire that are fundamental to achieving proficiency as a singer of classical art song repertoire at an advanced level. Emphasis is on solo performance, collaborative performance, and small ensemble performance of the solo repertoire in English, German, French and Italian. Note: Course may be repeated three times for a maximum of four enrollments.

MUS 121 VOCAL DEVELOPMENT – OPERA/MUSICAL THEATRE – 1-2 Units (P/NP Option)
Limitation on Enrollment: Admission to this class will be by audition to determine performance ability.
Note: Field trips and performances are required. Students are expected to progress in skill level to be able to master more advanced material.
Class Hours: 1 Unit=9 lecture/27 lab; 2 Units=18 lecture/54 lab
This class is for the vocal student who wishes to acquire and practice vocal techniques and repertoire of a professional nature, by providing operatic or theatrical experiences learning and performing small and large roles, ensembles, and necessary stagecraft. Emphasis is on classical opera repertoire of the various eras, sometimes performed in original languages when appropriate. Broadway musical repertoire includes scenes with movement. Requires active performance and movement on stage. Note: Course may be repeated three times for a maximum of four enrollments.

MUS 301 ORCHESTRA FOR SENIORS - 0 Units
Note: While this is an open enrollment class, an assessment will be conducted by the instructor at the start of the class to determine if the student has the required ability to participate in performances.
Class Hours: 9-54 lab total
A course designed to offer opportunities for older adults to participate in ensemble music with the Symphony Orchestra.

MUS 302 COMMUNITY SYMPHONIC BAND FOR SENIORS - 0 Units
Note: While this is an open enrollment class, an assessment will be conducted by the instructor at the start of the class to determine if the student has the required ability to participate in performances. Field trips and performances are required.
Class Hours: 54 lab total
A course designed to offer opportunities for older adults to participate in ensemble music with the Symphonic Band.

MUS 303 MUSIC FOR SENIORS - 0 Units
Note: While this is an open enrollment class, an assessment will be conducted by the instructor at the start of the class to determine if the student has the required ability to participate in performances.
Advisory: Demonstrated proficiency in the performance medium.
Class Hours: 18-54 lab total
A course designed to offer opportunities for older adults to participate in music performance.

NATURAL HISTORY (NHIS)

NHIS 15 NATURAL HISTORY - 3 Units (P/NP Option)
Class Hours: 54 lecture total
Designed to give the student a unified view of the natural history of Northern California and its relative place in the universe. The geology, freshwater and ocean environment, weather, lifezones, plant and animal species are emphasized.

NHIS 65 NATURAL HISTORY OF PATRICK'S POINT (formerly NHIS 65AB) - 1 Unit (P/NP Only)
Note: Students must provide their own camping gear and food. The college supplies and requires bus transportation for no additional cost.
Class Hours: 9 lecture/27 lab total - includes one orientation meeting plus one weekend
A three day, two night field trip to Patrick's Point State Park to familiarize students with the organisms and ecological interactions occurring in the various plant communities and intertidal zones. One pre-trip introductory lecture will be held. This course is repeatable one additional time since students will be able to reflect a higher level of understanding with increased exposure.

NHIS 105 NATURAL HISTORY OF THE SOUTHERN CASCADES (formerly GEOL 105) – 1 Unit (P/NP Option)
Note: Required overnight field trip.
Class Hours: 9 lecture/27 lab total
This course is an introductory, short-term field class in which the development of land forms and occupation of niches associated with a volcanic site will be covered. Types of volcanoes, life zones, specimen identification (rock, plant, and animal), and reading topographic maps will be introduced in the classroom and expanded upon during a two-day overnight field trip.

NATURAL RESOURCES

See AGNR for course listings

NR 98 SPECIAL TOPICS IN NATURAL RESOURCES LAB SKILLS - .5-2 Units (P/NP Option)
Class Hours: 27-108 lab total
This course is designed to give students an opportunity to explore a variety of topics in a lab setting dealing with changing knowledge in natural resources. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for agriculture, natural resources, and environmental horticulture majors; open to anyone with an interest in the topic. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

NATURAL SCIENCE (NSCI)

NSCI 30 SCIENCE COLLOQUIUM (formerly INTR 30) - 1 Unit (P/NP Only)
Note: Highly recommended for all science majors
Class Hours: 18 lecture total
This guest-lecture series will feature a broad range of professional scientists invited to summarize research and current issues from their disciplines. Topics will emphasize the bridge between the science (astronomy, biology, chemistry, environmental science, geology, physics and medicine) and society. A schedule of topics and invited speakers will be posted at the beginning of the semester.
Note: Due to the topics differing each semester, this course may be repeated three times for a total of four enrollments.

NSCI 97 SPECIAL TOPICS IN INTERDISCIPLINARY STUDIES (formerly INTR 97) - .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with Interdisciplinary Studies. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for anyone with an interest in the topic.
Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

NSCI 390 NATURAL SCIENCE LEARNING LAB - 0 Units
Class Hours: TBA
A program and facility designed to provide the student with the resources for self-paced auto-tutorial, computer tutorial, and audio-visual learning within various courses in Natural Science. Tutorial assistance is also available for students in Natural Science courses who experience some difficulty in a particular course or subject area.

NURSING

See Registered Nursing or Vocational Nursing

OFFICE ADMINISTRATION (OAS)

OAS 30 CREATING AND MANAGING THE VIRTUAL OFFICE - 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 280 or English Placement Level 5 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
There has been an increase in interest in using technology to work from home – telecommuting. Individuals may choose to work outside of their corporate/business office or may be entrepreneurs who wish to be self-employed. This course will explore issues that should be addressed when creating a virtual office. Topics will include managing your time, customizing your workplace, evaluating and buying technology, communicating with technology, and business ethics. This course may be offered in a distance learning format.

OAS 31 MARKETING YOURSELF AS A VIRTUAL ASSISTANT - 3 Units (P/NP Option)
Advisory: A grade of C or higher in OAS 30, and a grade of C or higher in CIS 83, and a grade of C or higher in OAS 96
Note: Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Math and Business Learning Center. Students taking the Internet format of this course must have access to the latest Microsoft Operating System and Office Suite.
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
Students will identify and evaluate various employment marketing techniques such as networking face-to-face, conducting virtual interviews, belonging to professional organizations, developing flyers and brochures, developing a professional Internet Web site, and using numerous Web-based resources. This course may be offered in a distpoance learning format.

OAS 51 KEYBOARDING I (BEGINNING TYPING) (formerly BUSI 51) - 3 Units (P/NP Option)
Note: Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Math and Business Learning Center. Students taking the Internet format of this course must have access to the latest Microsoft Operating System and Office Suite.
Class Hours: 36 lecture/54 lab total (when offered in the Distance Education format, hours will total 162)
A beginning course in keyboarding on the computer. Class includes learning to type alphabetic, numeric and symbol keys by touch; developing speed and accuracy; and formatting business documents such as letters, memos, reports, tables and business forms. Recommended for all students with less than one year of high school typing or typing speed of less than 40 wpm. No prior knowledge of computers is required to enroll. This course may be offered in a distance learning format.

OAS 52 KEYBOARDING II (INTERMEDIATE TYPING) (formerly BUSI 52) - 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in OAS 51 or OAS 91
Advisory: Ability to type 25 wpm
Note: Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Math and Business Learning Center. Students taking the Internet format of this course must have access to the latest Microsoft Operating System and Office Suite.
Class Hours: 36 lecture/54 lab total (when offered in the Distance Education format, hours will total 162)
This course continues the development of keyboard speed and accuracy and emphasizes the formatting of various kinds of business correspondence, reports, tables, forms, and desktop publishing projects from unarranged and rough-draft sources. This course provides preparation for Microsoft Office User Specialist (MOUS) Word Certification. This course may be offered in a distance learning format.

OAS 53 KEYBOARDING III (ADVANCED AND TECHNICAL TYPING) (formerly BUSI 53) - 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in OAS 52
Advisory: Ability to type 45 wpm
Note: Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Math and Business Learning Center. Students taking the Internet format of this course must have access to the latest Microsoft Operating System and Office Suite.
Class Hours: 36 lecture/54 lab total (when offered in the Distance Education format, hours will total 162)
This is a finishing course in keyboarding to enable the student to meet business requirements. The course is designed to give additional practice in building speed and accuracy and to apply previously learned word processing and document formatting competencies to a variety of integrated office projects in international marketing, hospitality, travel, energy, electronics, insurance, government, law, and medicine. This course may be offered in a distance learning format.

OAS 58 WORD PROCESSING TRANSCRIPTION (formerly BUSI 58) - 3 Units (P/NP Option)
Advisory: A grade of C or higher in OAS 52 and a grade of C or higher in BUAD 166
Note: Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Math and Business Learning Center.
Class Hours: 36 lecture/54 lab total (when offered in the Distance Education format, hours will total 162)
This course is designed to prepare students to become efficient operators of transcribing machines and be able to transcribe quickly and accurately mailable business correspondence from pre-dictated material. Emphasis will be placed on the mechanics of letter styles, memos, reports, and tables, as well as grammar, punctuation, spelling, vocabulary, and proofreading. This course may be offered in a distance learning format.

OAS 63 VOICE RECOGNITION SOFTWARE – 1 Unit (P/NP Option)
Class Hours: 18 lecture/9 lab total
This course introduces voice-recognition software to the student through multi-media lecture/demonstration/ discussion and hands-on application using the IBM compatible microcomputer. Using voice-recognition software, the students will input information into the computer by voice rather than by keyboard. It will focus on learning dictation commands and techniques for continuous voice dictation. The course covers voice commands for inputting, formatting and editing documents as well as for using menus and mouse commands.

OAS 64 COMPUTERIZED TEN-KEY (formerly BUSI 64) – .5 Unit (P/NP Option)
Class Hours: 27 lab total (when offered in the Distance Education format, hours will total 27)
A course designed to teach the numeric 10-key pad by touch on the computer with speed and accuracy using industry standards for data entry. Proficiency on three employment tests used by three large interstate corporations help the student meet employment standards. A required course for Accounting Clerk and Information Processing Specialist Certificate Programs. It is also a suggested elective in the Agriculture-Business and Agriculture-Industrial majors. This course has been designed for the hearing impaired. This course may be offered in a distance learning format.

OAS 70 DESKTOP PUBLISHING (formerly BUSI 85) - 1 Unit (P/NP Option)
Advisory: A grade of C or higher in OAS 91. Ability to type 25 wpm
Note: Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Math and Business Learning Center.
Class Hours: 18 lecture/9 lab total
An introduction to desktop publishing and its uses in business and industry through use of desktop publishing software (i.e., MS Publisher, PageMaker, PrintMaster). Students should gain an understanding of basic desktop terminology, design, and layout by producing a variety of documents with varying degrees of difficulty.

OAS 72 CORELDRAW - 1 Unit (P/NP Option)
Advisory: Basic knowledge of word processing and windows.
Note: Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Math and Business Learning Center. For the Internet section of this course the student should have the necessary/current software to complete work off-campus.
Class Hours: 18 lecture/9 lab total (when offered in the Distance Education format, hours will total 63)
This is a basic computer graphics course designed especially for office administration students and those interested in an elementary graphics course. This course should enable students to develop their own graphics and text styles with little or no previous training in graphic arts. The course focuses on graphic rendering and design. This course may be offered in a distance learning format.

OAS 80 OUTLOOK – 1 Unit (P/NP Option)
Advisory: Ability to type 25 wpm
Note: Class will require outside time using a computer with appropriate software. Some access is allowed on campus at the Math and Business Learning Center. Students taking the Internet format of this course must have access to and a working knowledge of the Internet, plus access to software Windows XP (or better) and Word 2002 (or better).
Class Hours: 18 lecture/9 lab total (when offered in the Distance Education format, hours will total 63)
This course introduces the student to the use of Microsoft Outlook, a desktop information management program in the Microsoft Office. Instruction will include managing e-mail messages, scheduling appointments and activities with the Calendar, entering and updating names and address as contacts, creating and maintaining an electronic to-do list with Tasks, and formatting and sorting electronic “sticky” notes. This course will be taught on IBM-compatible microcomputers. This course may be offered in a distance learning format.

OAS 84 OFFICE ADMINISTRATION WORKSITE LEARNING - 1-4 Units
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

OAS 91 WORD FOR WINDOWS - I - 1 Unit (P/NP Option)
Advisory: Ability to type 25 wpm
Note: Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Math and Business Learning Center. Students taking the Internet format of this course must have access to the latest Microsoft Operating System and Office Suite.
Class Hours: 18 lecture/9 lab total (when offered in the Distance Education format, hours will total 63)
This course introduces word processing through multi-media lecture/demonstration/discussion using Microsoft WORD for Windows on the IBM compatible microcomputer. Microsoft WORD will be used to complete the functions of creating, editing, saving, opening and printing documents with varying degrees of difficulty. Topics to be covered include: file management; creating new documents using both the blank Word document screen or wizards and templates; selecting text to move/copy/delete/format or utilize the clipboard; creating and formatting tables, including calculations; spelling and thesaurus tools; font, paragraph and page formatting; customized tabs; indents; bullets and numbering; borders and shading; headers, footers, and page numbering; finding and replacing. This course may be offered in a distance learning format.

OAS 92 WORD FOR WINDOWS - II - 1 Unit (P/NP Option)
Advisory: A grade of C or higher in OAS 91 or OAS 51. Ability to type 25 wpm
Note: Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Math and Business Learning Center. Students taking the Internet format of this course must have access to the latest Microsoft Operating System and Office Suite.
Class Hours: 18 lecture/9 lab total (when offered in the Distance Education format, hours will total 63)
Designed to expand and improve basic word processing skills to a higher level of proficiency through multi-media lecture/demonstration/discussion on an IBM compatible microcomputer. Instruction will include a review of basic concepts and commands, illustrating documents with graphics, creating a web site, merging word documents, working with styles and templates, developing multi-page documents; and integrating Word with other programs. This course may be offered in a distance learning format.

OAS 93 WORD FOR WINDOWS - III - 1 Unit (P/NP Option)
Prerequisite: A grade of C or higher in OAS 92
Advisory: Ability to type 25 wpm
Note: Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Math and Business Learning Center. Students taking the Internet format of this course must have access to the latest Microsoft Operating System and Office Suite.
Class Hours: 18 lecture/9 lab total (when offered in the Distance Education format, hours will total 63)
Designed to expand and improve word processing skills to a more advanced level of proficiency through multi-media lecture/demonstration/discussion on an IBM compatible microcomputer. Instruction will include a review of word processing concepts and commands; exploring advanced graphics, building forms, working with charts and diagrams, collaborating with workgroups, using macros and customizing Word. This course may be offered in a distance learning format.

OAS 94 POWERPOINT - 1 Unit (P/NP Option)
Advisory: Ability to type 25 wpm. Familiarity with Word Processing.
Note: Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Math and Business Learning Center. Students taking the Internet format of this course must have access to the latest Microsoft Operating System and Office Suite.
Class Hours: 18 lecture/9 lab total (when offered in the Distance Education format, hours will total 63)
This is a hands-on course designed to familiarize students with Microsoft PowerPoint. Students will learn how to create effective slide show presentations with emphasis on customizing text, graphics and charts. Students will work with embedded and linked objects as well as hyperlinks and use PowerPoint's many slide show features. This course may be offered in a distance learning format.

OAS 96 INTEGRATED COMPUTER APPLICATIONS - 2 Units (P/NP Option)
Prerequisite: A grade of C or higher in OAS 91 or OAS 51; and a grade of C or higher in CIS 10
Class Hours: 27 lecture/27 lab total (when offered in the Distance Education format, hours will total 108)
This course combines the skills previously learned in word processing and spreadsheet and also provides experience working with database and presentation software using Microsoft Office. The course will teach students how to integrate these applications. Students will also receive and send electronic messages as well as create contacts in an address book. Students will be asked to compose short messages as a boss would request in an office. This course may be offered in a distance learning format.

OAS 97 SPECIAL TOPICS IN OFFICE ADMINISTRATION – .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in office administration. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, it is repeatable three times for a total of four enrollments.

OAS 98 SPECIAL LAB TOPICS IN OFFICE ADMINISTRATION - .5-2 Units (P/NP Option)
Class Hours: 27-108 lab total
This course is designed to give students an opportunity to explore a variety of activities dealing with changing topics/knowledge in office administration. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

OAS 112 BASIC ICD-9-CM AND CPT-4 CODING (formerly HEOC 112 and MEDA 156 and MEDA 156A) - 3 Units
Corequisite: Students must be concurrently enrolled in, or have completed HEOC 110 with a grade of C or higher
Class Hours: 54 lecture total
This course is basic introduction to ICD-9-CM and CPT-4 coding for medical billing. It is designed to provide the learner with fundamentals needed to use the systems correctly and consistently. The student will learn the structure and format of ICD-9-CM and CPT-4 coding books and develop skills in assigning accurate codes. The student will use acceptable coding guidelines through practical application.

OAS 113 ADVANCED ICD-9-CM AND CPT-4 CODING – 3 Units
Prerequisite: A grade of C or higher in OAS 112
Corequisite: Students must be concurrently enrolled in, or have completed HEOC 111 with a grade of C or higher.
Class Hours: 54 lecture total
This course has been designed to enable the learner to interpret health record documentation for code assignment. Students will apply National Correct Coding Initiative guidelines.

OAS 114 HEALTHCARE BILLING AND REIMBURSEMENT - 3 Units
Corequisite: Students must be concurrently enrolled in, or have completed OAS 113 and OAS 150 with a grade of C or higher.
Class Hours: 54 lecture total
This course will provide the linkage between specialized medical office administration practices such as computerized medical account management and medical coding. The course will enable students to understand the processing of healthcare claims as it relates to various insurance payer requirements beginning with abstracting information from medical chart documents and following procedural steps based on the nature of the patient status and payer.

OAS 150 COMPUTERIZED MEDICAL ACCOUNT MANAGEMENT (formerly MEDA 150B) - 3 Units
Advisory: A grade of C or higher in OAS 51 and HEOC 110
Class Hours: 54 lecture total
This course is designed to prepare students for entry-level positions in medical office billing. Topics covered are computerized systems for appointment scheduling and follow-up: claim forms and coding; patient and insurance billing, and medical practice financial management.

OAS 152 KEYBOARDING FOR SPEED AND ACCURACY (formerly OAS 268 and OAS 268AD and BUSI 268AD) - .5 Unit (P/NP Option)
Advisory: Ability to type 20 wpm (students not typing at 20 wpm may wish to enroll in OAS 51)
Note: Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Math and Business Learning Center. Students taking the Internet format of this course must have access to the latest Microsoft Operating System and Office Suite.
Class Hours: 27 lab total (when offered in the Distance Education format, hours will total 27)
A course designed to help students improve their typing skills. Specific drills will be taught to correct individual typing deficiencies. Students at any level will be able to continue their development of keyboard control through repetitive typing of specific drills designed to improve both accuracy and speed. This course may be offered in a distance learning format.

OAS 154 MICROCOMPUTER KEYBOARDING (formerly MIS 154 and BUSI 154) - .5 Unit (P/NP Option)
Class Hours: 27 lab total
Designed to provide the intensive drill necessary to learn the alphabetic keys of the microcomputer keyboard. A beginning class intended for students needing a computer terminal keyboard skill who have had no previous typing experience. Student will be required to access software and key in data. Includes speed and accuracy development. This course does not have any document preparation or formatting instruction and does not meet the requirement of Beginning Typing for an Associate in Arts degree or certificate.

OAS 157 OFFICE PROCEDURES (formerly BUSI 157) - 3 Units
Advisory: A grade of C or higher in OAS 51, and a grade of C or higher in ENGL 280 or English Placement Level 5 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A capstone course in office technology. Content includes office ethics, greeting office callers, telephone techniques, working with others on the job, mail procedures, filing procedures, reference sources, appointment/calendaring, office reprographics, employment testing, and career planning. This course may be offered in a distance learning format.

OAS 158 MEDICAL OFFICE PROCEDURES (formerly BUSI 158) - 3 Units
Advisory: A grade of C or higher in OAS 51; and a grade of C or higher in ENGL 280 or English Placement Level 5 or higher
Class Hours: 54 lecture total
This is an essential class for students wishing to work in a medical office. Content includes: understanding the medical practice, the unique issues of working in a medical office, interacting with patients, dealing with insurance and finances, scheduling appointments, and obtaining employment.

OAS 159 WORD PROCESSING I-MEDICAL TRANSCRIPTION (formerly BUSI 159A) - 1.5 Units (P/NP Option)
Prerequisite: A grade of C or higher in HEOC 110 and OAS 52
Advisory: A grade of C or higher in each of the following courses: BUAD 166, OAS 58, and OAS 171
Note: Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Math and Business Learning Center.
Class Hours: 18 lecture/27 lab total (when offered in the Distance Education format, hours will total 81)
A course designed to help the student reinforce and expand knowledge of medical vocabulary and to acquire transcription skills through the typing of medical notes, reports, and diagnostic case histories. This course may be offered in a distance learning format.

OAS 160 WORD PROCESSING II-MEDICAL TRANSCRIPTION (formerly BUSI 159B) - 1.5 Units
Prerequisite: A grade of C or higher in OAS 159
Note: Class will require outside time using a computer with appropriate software. Some computer access is provided on campus at the Math and Business Learning Center.
Class Hours: 18 lecture/27 lab total (when offered in the Distance Education format, hours will total 81)
The second half of a semester program designed to help the student acquire entry-level skills in the medical transcription field. Further experience in transcribing diagnostic imaging, oncology, cardiology, hematology, general surgery, plastic surgery, dentistry, orthopedics, neurology, psychiatry, urology, obstetrics, pediatrics, otorhinolarngology, opthalmology, respiratory, gastroenterology, and pathology. This course may be offered in a distance learning format.

OAS 162 LEGAL FORM PREPARATION (formerly BUSI 160A) – 3 Units
Prerequisite: A grade of C or higher in LEGL 139
Advisory: Ability to type 25 wpm
Class Hours: 36 lecture/54 lab total
This course is designed to help the student acquire entry-level skills in the formatting of the most commonly used legal forms.

OAS 166 RECORDS MANAGEMENT(formerly BUSI 163) - 2 Units
Class Hours: 36 lecture/9 lab total
A study of the basic principles, rules, and procedures of filing. It includes a study of alphabetic, numeric, subject, and geographic filing and of the various types of filing equipment. A required course for Medical Billing Specialist Certificate, Medical Office Specialist Degree, Information Processing Specialist Certificate and Information Processing Specialist Degree, Records Manager Certificate, Administrative Assistant Degree, Administrative Assistant-Legal Degree, Transcriptionist Legal Certificate and Medical Transcriptionist Degree.

OAS 171 PROOFREADING SKILLS (formerly BUSI 168) - 2 Units
Advisory: A grade of C or higher in BUAD 166. Ability to type 25 wpm.
Class Hours: 36 lecture total
The application of appropriate methods of proofreading documents common to the work place. An overview of the essential skills needed to perform text-editing functions in business settings. A high level of proofreading skills is vital to the efficient operation and productivity of the word/information-processing office. Proofreading has become a "must" for quality control in the work place.

OAS 197 SPECIAL TOPICS IN OFFICE TECHNOLOGY - .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in the field of Office Technology. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for any of the Office Technologies majors or Business majors; open to anyone with an interest in the topic. Note: This course may be repeated three times for a total of four enrollments.

OAS 198 SPECIAL LAB TOPICS IN OFFICE TECHNOLOGY - .5-2 Units (P/NP Option)
Class Hours: 27-108 lab total
This course is designed to give students an opportunity to explore a variety of activities dealing with changing topics/knowledge in office technology. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

OAS 250 KEYBOARDING I (BEGINNING TYPING) - ADAPTIVE (formerly OAS 250AD and BUSI 250AD) - 3 Units (P/NP Option)
Class Hours: 36 lecture/54 lab total
A personal-use individualized course in keyboarding designed to meet the needs of students with physical and/or specific learning disabilities. Interested students must be interviewed by the instructor and DSPS and/or Learning Services Office to determine if the course is appropriate for the student's abilities and interests and to make arrangements for support services. The course includes instruction in correct keyboarding techniques appropriate for the individual student. Instruction covers memos, letters, tables, reports, and business forms. Students work toward personal growth objectives. This course does not meet the requirement of Keyboarding I (Beginning Typing) for an Associate in Arts degree or certificate.

OAS 254 ADAPTIVE MICROCOMPUTER KEYBOARDING (formerly MIS 251 and MIS 251AB and BUSI 251AB) - 1.5 Units (P/NP Only)
Class Hours: 81 lab total
A personal-use individualized course in keyboarding designed to meet the needs of students with disabilities. Interested students must be interviewed by the Learning Disabilities Specialist and/or the Physical Disabilities Counselor and the instructor to determine if the course is appropriate for the student's abilities and interests and to make arrangements for tutoring. The course is designed to provide the intensive drill necessary to master the alphabetic keys as well as numbers and symbols of the microcomputer keyboard. A beginning class intended for students needing a computer terminal keyboarding skill who have had no previous typing experience. Students will be required to access software and key in data. Includes speed and accuracy development. This course may introduce document production if keyboard is mastered by touch. This class does not meet the requirement of Keyboard I (Beginning Typing) for an Associate in Arts degree or certificate.
Note: This course may be repeated two times for a total of three enrollments since course content varies and skills are enhanced by supervised repetition and practice.

PHILOSOPHY (PHIL)

PHIL 6 INTRODUCTION TO PHILOSOPHY - 3 Units (P/NP Option) (CAN # PHIL 2)
Advisory: A grade of C or higher in ENGL 1A or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
A transfer humanities course introducing students to the major issues which philosophers have found important. It will explore what is special about the questions philosophers ask, and it will consider the most famous answers which philosophers have tried to give to those questions. Areas covered include philosophy of mind, theory of knowledge, metaphysics, moral philosophy, political philosophy, aesthetics, and philosophical theology. This course may be offered in a distance learning format.

PHIL 7 ETHICS: UNDERSTANDING RIGHT AND WRONG – 3 Units (P/NP Option) (CAN # PHIL 4)
Advisory: A grade of C or higher in ENGL 1A or English Placement Level 7
Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
Introduces students to a range of moral and social problems which are important in themselves and which philosophers have found especially interesting. Emphasis will be given to exploring many of the positions which can be taken on these issues, and to evaluating the arguments which can be given for those positions. Topics covered include general moral theories, abortion, euthanasia, capital punishment, warfare, gender and sexuality issues, political and economic issues, and the moral status of the natural world. This course may be offered in a distance learning format.

PHIL 8 LOGIC - 3 Units (P/NP Option) (CAN # PHIL 6)
Advisory: A grade of C or higher in ENGL 1A or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
Logic is the science that evaluates arguments. PHIL 8 provides students with extensive experience in identifying a range of correct and incorrect argument forms. Examples will come from everyday life. Students will also learn to use both the traditional categorical syllogism and modern statement logic. This course may be offered in a distance learning format.

PHIL 10 LIFE AND DEATH MORAL ISSUES - 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 1A or English Placement Level 7
Class Hours: 54 lecture total
This course will explore in detail the entire range of life and death moral issues which philosophers consider. These issues include abortion, euthanasia, capital punishment, warfare, self-defense cases, various crisis cases, cloning and stem cell research, among others. We will examine both the various moral claims made about these issues and the arguments presented in defense of those claims. This course can serve as an introduction to moral philosophy in particular, and to philosophy in general. The issues covered in this course should be of intrinsic interest to everyone.

PHYSICAL EDUCATION (PE)

HEALTH AND WELLNESS

PE 4 LIFETIME FITNESS - 3 Units (P/NP Option)
Class Hours: 45 lecture/27 lab total
In keeping with the primary purpose of Wellness, this course is designed to provide insight relative to the values derived by enriching the quality of our lives. Further, it includes the mechanisms for identifying individual needs and providing the means for measurement and improvement of lifestyles to reach a higher level of well being. This course provides a personalized approach to assess and prescribe the necessary programs to improve the components of physical fitness and wellness. In addition to the health related components of physical fitness (cardiovascular, muscular strength and endurance, muscular flexibility, body composition), topics covered include nutrition and weight control, cardiovascular risk reduction, stress management, drug and alcohol abuse, AIDS, and environmental health issues. This course further prepares enrollees in successfully passing certification testing conducted by National Council on Strength and Fitness.

PHYSICAL EDUCATION/FITNESS & CONDITIONING

PE 6 AEROBIC INSTRUCTOR TRAINING – 2 Units (P/NP Option)
Class Hours: 27 lecture/27 lab total
A comprehensive class covering current materials on exercise science as related to aerobic exercise instruction. Theories of aerobic training, strength and endurance development and exercise analysis are presented. Students will develop skills for creating aerobic exercises and dance choreography, low/high impact modification, formatting and cueing techniques. Written examinations and instructor critique on all materials may result in the student obtaining a certificate of completion.

PE 10 FOUNDATIONS OF HUMAN MOVEMENT AND EXERCISE PHYSIOLOGY (formerly HPE 8) - 3 Units (P/NP Option)
Class Hours: 54 lecture total
An introduction to the professional foundations of Kinesiology: Physical Education, Exercise Science, and Sports Medicine. Includes history, philosophy, concepts, programs, qualification, careers, issues, and future of the discipline.

PE 11 FUNDAMENTAL CONDITIONING (formerly HPE 1AD) - .5-1.5 Units (P/NP Option)
Class Hours: 27, 54, or 81 total activity
Designed to acquaint the student with exercises, activities and use of muscles to perform specific tasks and to improve physical well-being. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 12 WEIGHT TRAINING (formerly HPE 24AD) - .5-1.5 Units (P/NP Option)
Class Hours: 27, 54, or 81 total activity
A course in weight training and general conditioning. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 13 BODY MECHANICS (formerly HPE 33AD) - .5-1.5 Units (P/NP Option)
Class Hours: 27, 54, or 81 total activity
Course is directed at the student who does not have exercise or physical activity as a regular part of his or her life. The course has a dual concern: 1) that the student receive a strong theoretical base of knowledge so he/she can better understand and appreciate the need for and the means of a physical conditioning program, and 2) that student become involved in a physical conditioning program on a regular basis. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 14 BODY FITNESS ASSESSMENT AND CONDITIONING (formerly HPE 66AD) - .5-1 Unit (P/NP Option)
Class Hours: 27 or 54 total activity
Designed to provide the students with knowledge of personal levels of physical fitness and enable them to develop and implement a strategy to improve fitness levels through physiology of exercise, nutrition, and fundamental conditioning. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 15 AEROBIC DANCE (formerly HPE 53AD) - .5-1.5 Units (P/NP Option)
Class Hours: 27, 54, or 81 total activity
A complete physical conditioning program designed to increase cardiovascular efficiency through choreographed dances. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 16 AEROBIC EXERCISE (formerly HPE 63AD) – .5-1 Unit (P/NP Option)
Class Hours: 27 or 54 total activity
A complete physical conditioning program designed to increase cardiovascular efficiency through aerobic exercises. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 17 YOGA - .5-1 Unit (P/NP Option)
Class Hours: 27 or 54 total activity
Introduction to basic yoga postures. Students will study and practice the principles of yoga exercise through self-awareness, breathing, relaxation, visualization, and medication. Students will also learn the origin and history of yoga as a form of healthful exercise. This course is designed to meet all levels of experience in yoga techniques. Note: This course may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

ADAPTED PHYSICAL EDUCATION

The Adapted Physical Education program is taught by two, trained, physical education instructors. The program also includes a number of student aides that assist in administering the class activities. The Adapted PE program incorporates the use of the gymnasium, swimming pools, weight room, and cardio room, in an individualized activity program developed for each student.

PE 20 INTRODUCTION TO ADAPTED PHYSICAL EDUCATION (form. HPE 75AD) – ½-2 Units (P/NP Option)
Class Hours: 27-108 total activity
Introduction to adapted physical education is designed to provide an orientation to the diversified adapted program of developmental activities, games, and sports. Assessment is done to best suit the interest, capacities and limitations of students with disabilities who may not safely or successfully engage in unrestricted participation in the general physical education program. Note: This course may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 21 EXERCISE FOR ORTHOPEDIC DISORDERS OR INJURIES (form. HPE 73AD) - 1 Unit (P/NP Option)
Class Hours: 54 total activity
Exercise for orthopedic disorders is designed to provide a program of activities suitable for those students who are unable to participate in a regular physical education program because of orthopedic injury or disorders. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 22 EXERCISE FOR CARDIOVASCULARLY IMPAIRED (formerly HPE 74AD) - 1 Unit (P/NP Option)
Class Hours: 54 total activity
Exercise designed to provide a program of activities suitable for those students who are unable to participate in a regular physical education program because of cardiovascular impairments. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 23 EXERCISE FOR RESPIRATORY DISORDERS (formerly HPE 76AD) - 1 Unit (P/NP Option)
Class Hours: 54 total activity
Exercise designed to provide a program of activities suitable for those students who are unable to participate in a regular physical education program because of respiratory disorders. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 26 ADAPTED WEIGHT TRAINING - .5-2 Units (P/NP Option)
Class Hours: 27-108 lab total
Strength and flexibility development through supervised progressive exercise. Includes initial assessment, exercise prescription and equipment, and technique instruction. Note: This course may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 27 ADAPTED AQUATICS FOR THE PHYSICALLY LIMITED - .5-2 Units (P/NP Option)
Class Hours: 27-108 lab total
Aquatic exercise designed to provide a program of activities for those students who are unable to participate in a regular physical education aquatic program because of physical or mental impairments. Note: This course may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

AQUATICS

PE 30 SWIMMING (formerly HPE 40AD) - .5-1 Unit (P/NP Option)
Class Hours: 27 or 54 total activity
This class is designed to offer instruction in aquatic skills necessary for survival, efficiency in swimming and diving, and conditioning in the aquatic environment. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 31 AQUA AEROBICS (formerly HPE 79AD) - .5-1 Unit (P/NP Option)
Class Hours: 27 or 54 total activity
Aqua aerobics is an activity class covering basic aquatic exercises. Water is the perfect medium providing natural resistance for toning, firming, and strengthening. Body alignment, heart rates, fun, and pleasure without strain will be included. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 32 WATER POLO (formerly HPE 44AB) - .5- 1 Unit (P/NP Option)
Class Hours: 27 or 54 total activity
A course designed to acquaint students with the sport of water polo. Emphasis on rules, individual skills, team play, and game strategy. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 33 PADDLE SPORTS (formerly HPE 59AB) - .5-1 Unit (P/NP Option)
Class Hours: 27 or 54 total activity
This course is designed to offer instruction in canoeing or kayaking. The course will cover material on types of canoes or kayaks, their uses, basic paddling strokes, reading moving water, use of safety and rescue equipment and personal rescue techniques. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 35 LIFEGUARD TRAINING (formerly HPE 43AB) – 2 Units (P/NP Option)
Advisory: Red Cross Level VII swimming skills.
Class Hours: 27 lecture/27 lab total
A course designed to provide training and prepare student for certification in American Red Cross Lifeguard Training, Professional Rescuers CPR, and First Aid Basics. Note: This class may be repeated any number of times for credit by students who are legally mandated to meet training requirements as a condition of continued pay or volunteer employment.

PE 36 WATER SAFETY INSTRUCTORS (formerly HPE 54) - 1.5 Units (P/NP Option)
Class Hours: 18 lecture/27 lab total
A course designed to provide laboratory experience in the methodology of American Red Cross swimming instruction. Emphasis is placed on practical application of instructional theory used at all levels of swimming instruction. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 37 SPRINGBOARD DIVING - .5-1 Unit (P/NP Option)
Class Hours: 27 or 54 total activity
A course designed to present skills and techniques of one and three meter diving, and diving performance criteria.
Note: This course may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 38 SNORKELING - .5 Unit (P/NP Option)
Note: 1) Students will need to have appropriate equipment (mask, fins, snorkel, wet suit, wet belt, and buoyancy compensator). 2) Students will need to provide own transportation for field trips which will be arranged at the first class meeting. Class will meet at Shasta College pools for first 9-hours and by arrangement off-campus for 18-additional hours.
Class Hours: 27 total activity
A course designed to provide theory and practical skills required for safe and enjoyable snorkeling/free-diving in lake, stream, or ocean.

PE 39 BASIC SAILING – 1 Unit (P/NP Option)
Advisory: Safe swimmer
Class Hours: 54 lab total
This course will offer instruction on the basic art of sailing. Topics will include boater safety, boat parts identification, boat set up and breakdown, boat launching, sail trim, rudder control, righting the boat in case of capsize and on-the-water right of way. This course may be repeated once for a total of two enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

DANCE

For Dance courses, refer to DAN in the catalog

RACQUET SPORTS

PE 51 TENNIS (formerly HPE 35AD) - .5-1.0 Units (P/NP Option)
Class Hours: 27 or 54 total activity
A course in fundamentals, techniques, rules of play, strategies, and social courtesies in singles and doubles play with the skill ranging from the beginning to the advanced. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

INDIVIDUAL SPORTS AND TEAM SPORTS

PE 60 SELF-DEFENSE (formerly HPE 2AD) - .5-1 Units (P/NP Option)
Class Hours: 27 or 54 total activity
This course will be conducted in such a manner that both the beginning and intermediate student will be able to learn and use basic to advanced skills. Self defense techniques will be introduced from basic to advanced levels. The student will acquire fundamental skills in stances, punches, blocks, kicks, and escaping techniques. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 62 GOLF (formerly HPE 32AD) - .5-1 Units (P/NP Option)
Class Hours: 27or 54 total activity
Designed to teach the fundamental skills and knowledge necessary to participate in the game of golf. A course for the beginning, intermediate, or advanced player who desires a review. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 69 FOOTBALL (formerly HPE 3AD) - .5-1 Unit (P/NP Option)
Class Hours: 27 or 54 total activity
An activity course designed to teach skills and techniques of football. Team play is emphasized to prepare the beginner and intermediate player for competitive play. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 70 VOLLEYBALL (formerly HPE 6AD) - .5-1 Unit (P/NP Option)
Class Hours: 27 or 54 total activity
Designed to develop basic skills and an understanding and appreciation for the game of volleyball. The use of lecture, demonstration and drills/practice will provide the student with the opportunity for skill improvement. Rules, strategy, and team play will enhance the student's knowledge to continue this activity at a higher level. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 71 SOFTBALL (formerly HPE 5AD) - .5-1.5 Unit (P/NP Option)
Class Hours: 27, 54, or 81 total activity
An activity course designed to teach skills and techniques of softball. Team play is emphasized to prepare the beginner and intermediate player for competitive play. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 72 BASEBALL (formerly HPE 5AD) - .5-1.5 Unit (P/NP Option)
Class Hours: 27, 54, or 81 total activity
An activity course designed to teach skills and techniques of baseball. Team play is emphasized to prepare the beginner and intermediate player for competitive play. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 73 TRACK & FIELD TECHNIQUES (formerly HPE 12AD) - .5-1.5 Unit (P/NP Option)
Class Hours: 27, 54, or 81 total activity
An activity course designed to teach and practice fundamental skills of track and field. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 74 SOCCER (formerly HPE 41AD) - .5-1.5 Units (P/NP Option)
Class Hours: 27, 54, or 81 total activity
A course designed to provide instruction on the history, theory, fundamental skills, strategies, and techniques of the game of soccer. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 75 BASKETBALL (formerly HPE 4AD) - .5-1.5 Units (P/NP Option)
Class Hours: 27, 54, or 81 total activity
Designed to develop basic skills and understanding and appreciation for the game of basketball. The use of lecture, demonstration and drills will provide the student with the opportunity for skill development. Rules, strategy, and team play will enhance the students knowledge to continue this activity at a higher level. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 97 SPECIAL TOPICS IN PHYSICAL EDUCATION – .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in physical education. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

PE 98 SPECIAL TOPICS IN PHYSICAL EDUCATION - ACTIVITY- .5-2 Units (P/NP Option)
Class Hours: 27-108 total activity
This course is designed to give students an opportunity to explore a variety of activities dealing with changing topics/knowledge in physical education. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

SPORT CLINICS

PE 100 FOOTBALL CLINIC - .5 Unit (P/NP Option)
Class Hours: 27-36 total activity
This short-term activity course will teach and build on fundamental skills and techniques in football. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 101 VOLLEYBALL CLINIC - .5 Unit (P/NP Option)
Class Hours: 27-36 total activity
This short-term activity course will teach and build on fundamental skills and techniques in volleyball. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 102 BASKETBALL CLINIC - .5 Unit (P/NP Option)
Class Hours: 27-36 total activity
This short-term activity course will teach and build on fundamental skills and techniques in basketball. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 103 SOFTBALL CLINIC - .5 Unit (P/NP Option)
Class Hours: 27-36 total activity
This short-term activity course will teach and build on fundamental skills and techniques in softball. This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 104 BASEBALL CLINIC - .5 Unit (P/NP Option)
Class Hours: 27-36 total activity
This short-term activity course will teach and build on fundamental skills and techniques in baseball. This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 105 TENNIS CLINIC - .5 Unit (P/NP Option)
Class Hours: 27-36 total activity
This short-term activity course will teach and build on fundamental skills and techniques in tennis. This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 106 GOLF CLINIC - .5 Unit (P/NP Option)
Class Hours: 27-36 total activity
This short-term activity course will teach and build on fundamental skills and techniques in golf. This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 107 SOCCER CLINIC - .5 Unit (P/NP Option)
Class Hours: 27-36 total activity
This short-term activity course will teach and build on fundamental skills and techniques in soccer. This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 108 SWIMMING CLINIC - .5 Unit (P/NP Option)
Class Hours: 27-36 total activity
This short-term activity course will teach and build on fundamental skills and techniques in swimming. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 109 TRACK AND FIELD CLINIC - .5 Unit (P/NP Option)
Class Hours: 27-36 total activity
This short-term activity course will teach and build on fundamental skills and techniques in track and field. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 110 WRESTLING CLINIC - .5 Unit (P/NP Option)
Class Hours: 27-36 total activity
This short-term activity course will teach and build on fundamental skills and techniques in wrestling. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition/practice.

PE 111 CHEERLEADING CLINIC - .5 Unit (P/NP Option)
Class Hours: 27-36 total activity
This short-term activity course will teach and build on fundamental skills and techniques in cheerleading. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 112 KARATE CLINIC - .5 Unit (P/NP Option)
Class Hours: 27-36 total activity
This short-term activity course will teach and build on fundamental skills and techniques, both physical and mental, of traditional Shotokan Karate. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 113 BALLET CLINIC - .5 Unit (P/NP Option)
Class Hours: 27-36 total activity
This short-term activity course will teach and build on fundamental skills and techniques, both physical and mental, of traditional ballet. Note: This course may be repeated three times, for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PE 197 SPECIAL TOPICS IN PHYSICAL EDUCATION - .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in physical education. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

PE 198 SPECIAL TOPICS IN PHYSICAL EDUCATION - ACTIVITY - .5-2 Units (P/NP Option)
Class Hours: 27-108 total activity
This course is designed to give students an opportunity to explore a variety of activities dealing with changing topics/knowledge in physical education. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Note: Since subject matter varies each time the course is taught, this course is repeatable three times for a total of four enrollments.

NON-CREDIT - PHYSICAL EDUCATION

PE 300 FITNESS FOR SENIORS (formerly HPE 305) - 0 Units (P/NP Option)
Class Hours: 27-72 total activity
Modified postures for seniors that are specifically designed to provide gentle stretching, strengthening, and balancing with emphasis in increasing limberness and stamina.

PE 301 FITNESS FOR THE DEVELOPMENTALLY DISABLED - 0 Unit (P/NP Option)
Class Hours: 27-72 total activity
Modified exercises for the developmentally disabled person that are specifically designed to provide gentle stretching, strengthening, range of motion, with emphasis in increasing limberness and stamina. Nutritional aspects of wellness will be discussed.

PHYSICAL EDUCATION – ATHLETICS (PEAT)

PEAT 2 CLINICAL EXPERIENCES IN SPORTS MEDICINE (formerly HPE 91L) - 1-3 Units (P/NP Option)
Class Hours: 54-162 total activity
Theory, practice, and hands-on experience in athletic injury prevention, athletic emergency care, therapeutic treatment, and rehabilitation of athletic injuries in the Athletic Treatment Center. Note: This class may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PEAT 3 STRENGTH TRAINING & CONDITIONING FOR ATHLETES (formerly HPE 64AD) - .5-1.5 Units (P/NP Option)
Class Hours: 27, 54, or 81 total activity
A course designed to provide specialized strength training program to meet the needs of athletes of various sports. Note: Since subject matter varies each time course is taught, course is repeatable three times for a total of four enrollments.

PEAT 4 THEORY OF COACHING (formerly HPE 85/86) – 1 Unit (P/NP Option)
Class Hours: 18 lecture total
A course designed to teach the coach or aspiring coach a greater understanding of coaching philosophies, sport pedology, sport physiology, adolescent psychology, sport medicine, and sport rules and regulations. Also, how to deal with parental dilemmas and ethical issues.

PEAT 5 INTERCOLLEGIATE FOOTBALL (formerly HPE 14AB) - 2 Units (P/NP Option)
Note: Tryouts may be required to determine performance capability
Class Hours: 108-180 hours total
Football instruction practice and competition at the intercollegiate level. Note: This course may be repeated two times for a total of three enrollments since skills and proficiencies are enhanced by supervised repetition and practice. (If student desires to compete in conference matches, he/she must meet conference eligibility requirements.)

PEAT 6 THEORY OF FOOTBALL (formerly HPE 9AB) - .5 Unit (P/NP Option)
Class Hours: 9 lecture/18 activity total
A course designed to teach the rules, theory, and strategies of football. Note: This course may be repeated once for a total of two enrollments since skills are enhanced by supervised repetition and practice.

PEAT 7 INTERCOLLEGIATE VOLLEYBALL (formerly HPE 61AB) - 2 Units (P/NP Option)
Note: Tryouts may be required to determine performance capability
Class Hours: 108-180 hours total
Volleyball instruction, practice and competition at the intercollegiate level. Note: This course may be repeated two times for a total of three enrollments since skills and proficiencies are enhanced by supervised repetition and practice. (If student desires to compete in conference matches, he/she must meet conference eligibility requirements.)

PEAT 8 THEORY OF VOLLEYBALL (formerly HPE 52AB) - .5 Unit (P/NP Option)
Class Hours: 9 lecture/18 activity total
This course is designed to teach the theoretical and strategic aspects of volleyball. Note: This course may be repeated once for a total of two enrollments since skills are enhanced by supervised repetition and practice.

PEAT 9 INTERCOLLEGIATE CROSS COUNTRY (formerly HPE 29AB) - 2 Units (P/NP Option)
Note: Tryouts may be required to determine performance capability
Class Hours: 108-180 hours total
Cross country instruction, practice and competition at the intercollegiate level. Note: This course may be repeated two times for a total of three enrollments since skills and proficiencies are enhanced by supervised repetition and practice. (If student desires to compete in conference matches, he/she must meet conference eligibility requirements.)

PEAT 10 THEORY OF CROSS COUNTRY (formerly HPE 30AB) - .5 Unit (P/NP Option)
Class Hours: 9 lecture/18 activity total
A course designed to teach the rules, theory and strategies of cross country. Note: This course may be repeated once for a total of two enrollments since skills are enhanced by supervised repetition and practice.

PEAT 11 INTERCOLLEGIATE BASKETBALL (formerly HPE 15AB) - 1 Unit (P/NP Option)
Note: Tryouts may be required to determine performance capability
Class Hours: 54-90 lab hours total
Basketball instruction, practice and competition at the intercollegiate level. Note: This course may be repeated three times for a total of four enrollments since skills and proficiencies are enhanced by supervised repetition and practice. (If student desires to compete in conference matches, he/she must meet conference eligibility requirements.)

PEAT 12 THEORY OF BASKETBALL (formerly HPE 13AB) - .5 Unit (P/NP Option)
Class Hours: 9 lecture/18 activity total
A course related to the teaching of rules, theory and methods in basketball. Note: This course may be repeated once for a total of two enrollments since skills are enhanced by supervised repetition and practice.

PEAT 13 INTERCOLLEGIATE SOFTBALL (formerly HPE 62AB) - 2 Units (P/NP Option)
Note: Tryouts may be required to determine performance capability
Class Hours: 108-180 hours total
Softball instruction, practice and competition at the intercollegiate level. Note: This course may be repeated two times for a total of three enrollments since skills and proficiencies are enhanced by supervised repetition and practice. (If student desires to compete in conference matches, he/she must meet conference eligibility requirements.)

PEAT 14 THEORY OF SOFTBALL (formerly HPE 42AB) - .5 Unit (P/NP Option)
Class Hours: 9 lecture/18 activity total
A course related to the teaching of rules, theory, strategies and methods of softball. Designed to enhance the performance of prospective intercollegiate softball athletes. Note: This course may be repeated once for a total of two enrollments since skills are enhanced by supervised repetition and practice.

PEAT 15 INTERCOLLEGIATE BASEBALL (formerly HPE 16AB) - 2 Units (P/NP Option)
Note: Tryouts may be required to determine performance capability
Class Hours: 108-180 hours total
Baseball instruction, practice and competition at the intercollegiate level. Note: This course may be repeated two times for a total of three enrollments since skills and proficiencies are enhanced by supervised repetition and practice. (If student desires to compete in conference matches, he/she must meet conference eligibility requirements.)

PEAT 16 THEORY OF BASEBALL (formerly HPE 10AB) – .5 Unit (P/NP Option)
Class Hours: 9 lecture/18 activity total
A course designed to teach the rules, theory and strategies of competitive baseball. Note: This course may be repeated once for a total of two enrollments since skills are enhanced by supervised repetition and practice.

PEAT 17 INTERCOLLEGIATE TRACK AND FIELD (formerly HPE 18AB) - 2 Units (P/NP Option)
Note: Tryouts may be required to determine performance capability
Class Hours: 108-180 hours total
Track and field instruction, practice and competition at the intercollegiate level. Note: This course may be repeated two times for a total of three enrollments since skills and proficiencies are enhanced by supervised repetition and practice. (If student desires to compete in conference matches, he/she must meet conference eligibility requirements.)

PEAT 18 THEORY OF TRACK AND FIELD (formerly HPE 28AB) - .5 Unit (P/NP Option)
Class Hours: 9 lecture/18 activity total
A course designed to teach the rules, theory and strategies of track and field. Note: This course may be repeated once for a total of two enrollments since skills are enhanced by supervised repetition and practice.

PEAT 19 INTERCOLLEGIATE TENNIS (formerly HPE 17AB) - 2 Units (P/NP Option)
Note: Tryouts may be required to determine performance capability
Class Hours: 108-180 hours total
Tennis instruction, practice and competition at the intercollegiate level. Note: This course may be repeated two times for a total of three enrollments since skills and proficiencies are enhanced by supervised repetition and practice. (If student desires to compete in conference matches, he/she must meet conference eligibility requirements.)

PEAT 20 THEORY OF TENNIS (formerly HPE 68AB) – .5 Unit (P/NP Option)
Class Hours: 9 lecture/18 activity total
A course related to the teaching of rules, theory and strategies of intercollegiate tennis. Note: This course may be repeated once for a total of two enrollments since skills are enhanced by supervised repetition and practice.

PEAT 21 INTERCOLLEGIATE GOLF (formerly HPE 19AB) - 2 Units (P/NP Option)
Note: Tryouts may be required to determine performance capability
Class Hours: 108-180 hours total
Golf instruction, practice and competition at the intercollegiate level. Note: This course may be repeated two times for a total of three enrollments since skills and proficiencies are enhanced by supervised repetition and practice. (If student desires to compete in conference matches, he/she must meet conference eligibility requirements.)

PEAT 22 THEORY OF GOLF (formerly HPE 69AB) - .5 Unit (P/NP Option)
Class Hours: 9 lecture/18 activity total
A course designed to teach the rules, theory and strategies of golf. Note: This course may be repeated once for a total of two enrollments since skills are enhanced by supervised repetition and practice.

PEAT 23 INTERCOLLEGIATE SOCCER (formerly HPE 71AB) - 2 Units (P/NP Option)
Note: Tryouts may be required to determine performance capability
Class Hours: 108-180 hours total
A course designed to provide advanced instruction on the skills, strategies, techniques and rules so that the student may play at the intercollegiate level of competition. Note: This course may be repeated two times for a total of three enrollments since proficiencies are enhanced by supervised repetition and practice. (If student desires to compete in conference matches, he/she must meet conference eligibility requirements.)

PEAT 24 THEORY OF SOCCER (formerly HPE 70AB) - .5 Unit (P/NP Option)
Class Hours: 9 lecture/ 18 activity total
A course designed to teach the rules, theory and strategies of competitive soccer. Note: This course may be repeated once for a total of two enrollments since skills are enhanced by supervised repetition and practice.

PEAT 25 INTERCOLLEGIATE SWIMMING AND DIVING (formerly HPE 82AB) - 2 Units (P/NP Option)
Note: Tryouts may be required to determine performance capability
Class Hours: 108-180 hours total
A course designed for students interested in swimming at the competitive level. Daily practice spring semester, various field trips for competition. Note: This course may be repeated two times for a total of three enrollments since skills and proficiencies are enhanced by supervised repetition and practice. (If student desires to compete in conference matches, he/she must meet conference eligibility requirements.)

PEAT 26 THEORY OF COMPETITIVE SWIMMING (formerly HPE 83AB) - .5 Unit (P/NP Option)
Class Hours: 9 lecture/18 activity total
A course designed to provide information about the rules, theories, scientific basis, and condition of intercollegiate swimmers. Note: This course may be repeated once for a total of two enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PEAT 27 INTERCOLLEGIATE WATERPOLO - 2 Units (P/NP Option)
Note: Tryouts may be required to determine performance capability
Class Hours: 108-180 hours total
A course designed to provide theory and practical skills required for students to compete in the sport of waterpolo against other college age students. Note: This course may be repeated two times for a total of three enrollments since skills and proficiencies are developed by supervised repetition and practice. (If student desires to compete in conference matches, he/she must meet conference eligibility requirements.)

PEAT 28 THEORY OF WATERPOLO - 1 Unit (P/NP Option)
Class Hours: 18 lecture/18 lab total
A course designed to teach the rules, theory, and strategies of waterpolo. As the athletes skills and proficiencies are developed, the theoretical and strategic aspects of the game become more complex and require additional instruction. Note: This course may be repeated two times for a total of three enrollments since skills and proficiencies are developed by supervised repetition and practice.

PEAT 29 INTERCOLLEGIATE WRESTLING - 2 Units (P/NP Option)
Note: Tryouts may be required to determine performance capability
Class Hours: 96-180 lab total
A course designed for students interested in wrestling at the competitive level. Daily practice fall semester, various field trips for competition. Note: This course may be repeated two times for a total of three enrollments since skills and proficiencies are enhanced by supervised repetition and practice. (If student desires to compete in conference matches, he/she must meet conference eligibility requirements).

PEAT 30 THEORY OF WRESTLING - .5 Unit (P/NP Option)
Class Hours: 9 lecture/18 lab total
This course is to provide information about the rules, theories, scientific basis, and training method of intercollegiate wrestlers. Note: This course may be repeated once for a total of two enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

PEAT 31 SPORT SAFETY TRAINING - .5 Unit (P/NP Option)
Class Hours: 9 lecture total
A course designed to train coaches and prospective coaches in the area of sport safety and first aid. Adult and child CPR is covered. Upon successful completion of this course, the student is eligible for American Red Cross Certification in sport safety training.

PEAT 94 WORKSITE LEARNING FOR ATHLETICS/COACHING - 1-4 Units (P/NP Option)
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

PHYSICAL SCIENCE (PHSC)

(see also Earth Science – ESCI)

PHSC 1 PHYSICAL SCIENCE SURVEY - 4 Units (P/NP Option)
Advisory: A grade of C or higher in MATH 101, or Math Placement Level 3 or higher
Class Hours: 54 lecture/54 lab total
Lecture-discussion, demonstration and lab activities cover selected theories of physics and chemistry, emphasizing the conceptual basis of these theories. The course is designed for non-science majors as part of their general education requirement in science. This course is not appropriate for students who have taken college level physics or chemistry.

PHYSICS (PHYS)

PHYS 2A GENERAL COLLEGE PHYSICS - 4 Units (P/NP Option) (CAN# PHYS 2) (CAN PHYS SEQ A)
Prerequisite: A grade of C or higher in MATH 102 or Math Placement Level 4 or higher
Class Hours: 54 lecture/54 lab total
This course provides an introduction to the principles and applications of mechanics, using the mathematical tools of algebra and right triangle trigonometry. Topics include vectors, kinematics, Newton's Laws, gravity, energy and momentum, equilibrium of rigid bodies, fluids and simple harmonic motion.

PHYS 2B GENERAL COLLEGE PHYSICS - 4 Units (P/NP Option) (CAN# PHYS 4) (CAN PHYS SEQ A)
Prerequisite: A grade of C or higher in PHYS 2A
Class Hours: 54 lecture/54 lab total
This course is a continuation of PHYS 2A, covering mechanical waves (including sound), electricity, magnetism, geometric optics, interference and diffraction and elementary quantum theory.

PHYS 4A PHYSICS (MECHANICS) - 4 Units (CAN# PHYS 8) (CAN# PHYS SEQ B)
Prerequisite: A grade of C or higher in MATH 3A, or Math Placement Level 6 or higher
Corequisite: Students must be concurrently enrolled in MATH 3B, or have completed MATH 3B with a grade of C or higher
Class Hours: 54 lecture/54 lab total
The fundamental principles of mechanics are treated within the mathematical framework of elementary differential and integral calculus. Vectors, Newton's Laws, work, energy gravitation, linear and angular momentum, rotational dynamics and motion studies are discussed.

PHYS 4B PHYSICS (ELECTRICITY AND MAGNETISM) – 4 Units (CAN# PHYS 12) (CAN# PHYS SEQ B)
Prerequisite: A grade of C or higher in MATH 3B or Math Placement Level 7; and a grade of C or higher in PHYS 4A
Corequisite: Students must be concurrently enrolled in MATH 4A, or have completed MATH 4A with a grade of C or higher.
Class Hours: 54 lecture/54 lab total
The fundamental principles of electricity and magnetism are treated using vector integral calculus. Topics include Coulombs Law, electric fields, potentials, Gauss' Law, Ohms Law, D-C circuits, Magnetism, Biot-Savart Law, Amperes Law, Capacitance, inductance and RC circuits.

PHYS 4C PHYSICS (WAVES, MODERN PHYSICS & QUANTUM MECHANICS) - 4 Units (CAN# PHYS 14) (CAN# PHYS SEQ B)
Prerequisite: A grade of C or higher in PHYS 4B, and a grade of C or higher in MATH 4A or Math Placement Level 7
Corequisite: Students must be concurrently enrolled in, or have completed MATH 4B with a grade of C or higher
Class Hours: 54 lecture/54 lab total
The third in a three-course sequence, this course covers general properties of waves, electromagnetic waves, reflection and refraction, interference and diffraction, the special theory of relativity, the quantum nature of light and the wave nature of matter, and Schrodinger's equation.

PHYS 101 TECHNICAL PHYSICS - 3 Units (P/NP Option)
Advisory: A grade of C or higher in MATH 102, or Math Placement Level 4
Note: One mandatory field trip will be required
Class Hours: 54 lecture total
A general physics course designed to explore applications of Physics for non-transfer students. This course is designed for students in (but not limited to) heavy-duty mechanics, automotive, drafting, sports, fire science and architecture.

PHYSIOLOGY (PHY)

PHY 1 PHYSIOLOGY (formerly PHY 1/PHY 1L) - 5 Units (P/NP Option) (CAN# BIOL 12)
Class Hours: 72 lecture/54 lab total
A study of cellular, tissues, and organ function in the human body. A college level course surveying the elements of human physiology in selected organ systems with an emphasis on their control and integration. The course will be presented in a lecture/discussion format with appropriate audio visual aids to emphasize selected concepts. Experiments are performed in the laboratory to illustrate functional characteristics of cells, membranes, and organ systems discussed in lecture and to provide direct experience with lab techniques, recording systems, and methods of data analysis. Some previous knowledge of anatomy and chemistry is helpful, but not required for success in the course. A prerequisite for A.D.N. and Dental Hygiene programs.

PHY 1L PHYSIOLOGY LAB - 1 Unit
Prerequisite: A grade of C or higher in PHY 1 (Lecture)
Class Hours: 54 lab total
This course is designed for students that have already taken a PHY 1 course without the lab. Students wishing to take this course must have written approval from the Division Dean. A total of 16 individual laboratory experiments which provide a reinforcement of the topics covered in Physiology lecture. Selected experiments include: membrane transport, enzyme characteristics, electrophoresis, human genetics, muscle contraction, EEG, cardiology, hemodynamics, and metabolism. Group activities, mini-lectures, and demonstrations will be part of each lab session.

PHY 5 HUMAN SEXUALITY - 3 Units (P/NP Option)
Note: Will not count toward fulfillment of general education transfer requirements in science. It will, however, count toward completion of Category "E" requirements for CSU system. Will meet science requirement for AA degree.
Class Hours: 36 lecture/18 discussion total (when offered in the Distance Education format, hours will total 162)
An informative course in human sexuality, including human development from conception to adulthood. The anatomy and physiology of sex as well as sexual disease, disorders, variations, myths and laws governing sexual practices will also be covered. This course may be offered in a distance learning format.

POLITICAL SCIENCE (POLS)

POLS 1 INTRODUCTION TO POLITICAL SCIENCE – 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 1A, or English Placement Level 7
Class Hours: 54 lecture total
The central emphasis of this course is upon the terms and concepts used in the field of political science. Discussion centers upon the nature of political science, the origin and nature of the State, patterns and functions of government, the nature of political ideologies, the nature of the U.S. Constitution and the basic principles of a constitution. It is recommended that students majoring in political science or other social sciences take this course.

POLS 2 INTRODUCTION TO AMERICAN GOVERNMENT - 3 Units (CAN# GOVT 2)
Advisory: A grade of C or higher in ENGL 190 or English Placement Level 6 or higher, or ESL 138 or ESL Placement Level 8 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course emphasizes the machinery of government as found in the American system. It examines the Constitutional framework and the functioning of government at national, state and local levels. Political Science majors should take this course as well as POLS 1, preferably in sequence. It satisfies State of California requirements in U.S. Constitution and California state and local government. This course may be offered in a distance learning format.

POLS 12 CALIFORNIA STATE AND LOCAL GOVERNMENT – 3 Units
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher, or a grade of C or higher in ESL 138 or ESL Placement Level 7 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
The purpose of this course is to acquaint the student with an understanding of how the State of California is governed. Emphasis will be placed on the local elections, political parties, legislative, executive, and judicial powers, special interest groups, lobbying, and campaign finances. Major events in the historical development of California and on present day issues will be examined in the context of the US and California state constitutions. This course may be offered in a distance learning format.

POLS 20 POLITICS OF THIRD WORLD NATIONS - 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 1A, or English Placement Level 7
Class Hours: 54 lecture total
This course focuses on the political dynamics of selected third world nations. Major emphasis will be on problems of poverty, colonialism, comparative political structures and behavior, imperialism and international relations. Tensions in political culture between traditional and non-traditional values in contemporary third world societies will also be examined.

POLS 25 GLOBAL POLITICS - 3 Units
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher; or a grade of C or higher in ESL 138 or ESL Placement Level 7 or higher; and a grade of C or higher in POLS 2
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course examines the political, social, and economic methods and processes by which nations of the world conduct relations with each other and within a global system. Ideology, nationalism, diplomacy, warfare, and the role of international organizations will be addressed. Major events of the last two centuries and present day issues will be evaluated in the context of a global system of international relations. This course may be offered in a distance learning format.

PSYCHOLOGY (PSYC)

PSYC 1A GENERAL PSYCHOLOGY - 3 Units (CAN# PSY 2)
Advisory: A grade of C or higher in ENGL 190 or English Placement Level 6 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
PSYC 1A is the basic introductory course for the study of psychology as a science and as a profession. It provides both a general survey and intensive introduction to these concepts and elementary principles which are unique to psychology. Topics include perception, learning, development, motivation, personality, abnormal behavior, and biological and social bases of behavior. This course may be offered in a distance learning format.

PSYC 14 UNDERSTANDING HUMAN BEHAVIOR - 3 Units
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This introductory psychology course provides a general survey of psychological concepts, theories, methods, and applications. Topics include learning, development, motivation, emotions, personality, abnormal behavior, psychotherapy, stress and coping, gender and sexuality, relationships, communication, and biological and social bases of behavior. This course may be offered in a distance learning format.

PSYC 15 SOCIAL PSYCHOLOGY - 3 Units (P/NP Option)
Advisory: A grade of C or higher in PSYC 1A and/or a grade of C or higher in SOC 1; and a grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course is a study of human interaction. The focus is on the individual within the social context. Topics such as attitude formation, conformity, obedience to authority, liking and loving, gender, age, and cultural diversity, prejudice, discrimination and stereotyping, pro-social behavior and altruism, aggression, power and leadership, groupthink and deindividuation, conflict resolution and peacemaking are explored. In addition, the research methods and theories used by social psychologists are discussed. Equipment and skills to access the Internet will be useful. This course may be offered in a distance learning format.

PSYC 16 HEALTH PSYCHOLOGY - 3 Units (P/NP Option)
Advisory: A grade of C or higher in PSYC 1A; and a grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course examines the scientific and professional contributions made by the field of psychology in the promotion of and maintenance of health; the prevention and treatment of illness; how psychological, social, and biological factors influence one's overall state of health including both wellness and illness; understanding the roles of patients and health care providers; and to the improvement of health care systems and health policy formation. Individual characteristics such as gender, culture, lifestyle, personality, and relationships and their affects on health are explored. Students who are pursuing psychology, health care, and/or human services as their profession will find this course beneficial. Skills to access the Internet will be helpful. This course may be offered in a distance learning format.

PSYC 17 ABNORMAL PSYCHOLOGY - 3 Units (P/NP Option)
Advisory: A grade of C or higher in PSYC 1A; and a grade of C or higher in ENGL 1A, or English Placement Level 7
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course provides a historical overview of the field of abnormal psychology with an emphasis on current theories and paradigms. Abnormality is defined and behaviors that are considered abnormal or maladaptive are described. Assessment, diagnostic, classification, and prevention techniques, as well as psychological and biological therapies are explored. This course may be offered in a distance learning format.

PSYC 20 CROSS-CULTURAL PSYCHOLOGY - 3 Units (P/NP Option)
Advisory: A grade of C or higher in PSYC 1A; and a grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
An introduction to theories and research findings regarding cultural influences on human behavior and cognitive processes, including but not limited to: life-span development, abnormal behavior and mental health, drug use, self-concept, emotions, gender expectations and gender roles, social behavior, perception, learning, intelligence, and psychotherapy. By providing students with an understanding of relativism this course will encourage them to interact with tolerance and/or appreciation in a world where there is an increasing contact among different cultures. This course may be offered in a distance learning format.

PSYC 41 CULTURAL/SOCIAL CONTEXT OF CHILDHOOD – 3 Units
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course examines the impact of the psychological, social, and cultural context of child development. Emphasis is given to the socialization process and to the cultural influences including ethnic identity, family relations, socioeconomic status, gender roles, peers, faith, and communities. Significant references highlight the experiences of children and their families from at least four different historically under-represented groups. This course may be offered in a distance learning format.

PSYC 46 HUMAN MEMORY AND LEARNING - 3 Units (P/NP Option)
Advisory: A grade of C or better in ENGL 280 or English Placement Level 5 or higher
Class Hours: 54 lecture total
This course will explore how the mind/brain stores and retrieves information. Core concepts of modern research and theorizing about human memory and cognition will be reviewed. Research on the application of memory and learning principles to memory and learning improvement will be investigated. Students will learn to evaluate the role of attention, prior learning, cognitive style, personality functioning and motivation in memory encoding and retrieval. Changes in memory processes through the lifespan will be examined including recent research on topics such as Alzheimer's and amnesia.

PUBLIC SAFETY (PUBS)

PUBS 158 SCHOOL BUS DRIVER TRAINING (formerly EDUC 158) - 2 Units (P/NP Option)
Class Hours: 36 lecture total
The purpose of this course is to acquaint students with the laws, regulations, and operational procedures involved in becoming a licensed California school bus driver. This course meets a state-mandated classroom training requirement which a student must complete prior to behind-the-wheel training. This course does not include individual behind-the-wheel training, but will acquaint the student with laws and procedures pertaining to the correct operation of a school bus and procedures to obtain behind-the-wheel training.

PUBS 159 SCHOOL BUS DRIVER TRAINING REFRESHER (formerly EDUC 363) - .5 Unit (P/NP Option)
Class Hours: 10 lecture total
This course complies with the State mandated requirements of Education Code 40085 for drivers wishing to renew a CA Special Drivers Certificate to operate a school bus.

REAL ESTATE (REAL)

REAL 30 REAL ESTATE PRINCIPLES (formerly BUSI 30) - 3 Units
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 54 lecture total
The fundamental real estate course covering the basic laws and principles of California Real Estate gives understanding, background, and terminology necessary for advanced study in specialized courses. Designed to assist those in preparing for the real estate salesperson license examination. Either this course or possession of a real estate license is prerequisite to most other real estate courses. Required for Real Estate majors and in the Real Estate Certificate Program.

REAL 31 REAL ESTATE PRACTICE (formerly BUSI 31) - 3 Units
Advisory: A grade of C or higher in REAL 30. A grade of C or higher in ENGL 280 or English Placement Level 5 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
Day-to-day operations of the real estate broker and agent; sales techniques, prospecting, financing, escrow, and ethics. Applies toward California Department of Real Estate educational requirements for agents continuing education and brokers examination. Required for Real Estate majors and Real Estate Certificate program. Offered primarily as an evening class. This course may be offered in a distance learning format.

REAL 32 REAL ESTATE APPRAISAL (formerly BUSI 32) - 3 Units (P/NP Option)
Advisory: A grade of C or higher in REAL 30 or have a real estate license
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course will familiarize the student with the basic principles of real estate appraisal and the application of those principles to the market, cost, and income approaches to the valuation of real property. The main emphasis of this course is one the appraisal of single family residences. However, the student will receive introductory information as to the appraisal of income-producing properties. This course applies toward California Department of Real Estate educational requirements for the broker's and salesperson's licenses, the Certification Program for Real Estate majors, and the educational requirements under the state-mandated appraisal licensing (OREA). This course is offered primarily as an evening class. This course may be offered in a distance learning format.

REAL 33 LEGAL ASPECTS OF REAL ESTATE (formerly BUSI 33) - 3 Units
Advisory: A grade of C or higher in REAL 30 or have a real estate license
Class Hours: 54 lecture total
A study of California real estate law, including rights incident to property ownership and management, agency, contracts, and application to real estate transfer, conveyancing, trust deed and foreclosure as well as recent legislation governing real estate transactions, environmental regulations and conduct.

REAL 34 REAL ESTATE FINANCE (formerly BUSI 34) - 3 Units (P/NP Option)
Advisory: A grade of C or higher in REAL 30 or real estate license
Class Hours: 54 lecture total
Analysis of Real Estate financing, including lending policies and problems in financing transactions in residential, apartment, commercial, and special-purpose properties. This course will introduce the basic everyday problems encountered in the mortgage banking field in relation to simple real estate transactions. It will also offer solutions to those problems in terms of everyday language to the agent or the buyer and seller of real estate. It is a practical approach to real estate finance. Offered primarily in the evening program. Applies toward California Department of Real Estate educational requirements for the broker's examination.

REAL 135 REAL ESTATE ECONOMICS (formerly BUSI 135) - 3 Units
Class Hours: 54 lecture total
A study of the interrelationship between economics and real estate. The course includes a review of basic economic principles; a study of real estate markets; a look at the influences involving real estate development; and, perhaps most important, a study of the economics of real estate investment. Offered in evening program only.

REAL 136 INTRODUCTION TO ESCROW (formerly BUSI 136) - 3 Units
Advisory: A grade of C or higher in ENGL 280 or English Placement Level 5 or higher. A grade of C or higher in REAL 30
Class Hours: 54 lecture total
Case method presentation in escrow procedures including processing sale, loan, exchange and business escrows. Includes review and preparation of documents, processing and closing escrows, prorations, title search, title reports and all details appurtenant to efficient escrow processing. Offered primarily as an evening course.

REAL 138 ADVANCED REAL ESTATE APPRAISAL (formerly BUSI 138) - 3 Units (P/NP Option)
Advisory: A grade of C or higher in REAL 32
Class Hours: 54 lecture total
This course will reinforce the basic principles of real estate appraisal and their application to the three approaches to valuation of real property. The main emphasis of this course is on the income approach to value along with the support of the market and cost approaches, as all three approaches apply to income-producing property, such as multi-family, commercial, industrial, and any other special purpose-type properties. This course applies toward California Department of Real Estate educational requirements for the broker's and salesperson's licenses, the Certification Program for Real Estate majors, and the educational requirements under the state-mandated appraisal licensing (OREA). This course is offered primarily as an evening class.

REGISTERED NURSING (REGN)

See Also: HEOC and VOCN

REGN 1 THEORETICAL FOUNDATIONS OF NURSING CARE (formerly REGN 60) – 7 Units
Limitation on Enrollment: Students must be enrolled in the nursing program
Corequisite: Students must be concurrently enrolled in REGN 2
Note: All students participating in clinical rotations must submit proof of drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.
Class Hours: 126 lecture total
In this first course leading to Registered Nursing licensure, the theoretical foundation is built by the student for application in the clinical area of adult and elderly adult medical-surgical nursing. The learner is studying the underlying theories and principles of fundamental nursing care and is introduced to concepts of medical-surgical nursing, which are demonstrated in the corequisite clinical course, REGN 2 Clinical Foundations of Nursing Care. The learner expands on prerequisite course work to ensure a safe foundation for clinical practice. The student demonstrates critical thinking through application of the nursing process. Fundamental physical health assessment is emphasized and therapeutic communication is applied in patient and family interactions. Wellness is promoted through the patient education process.

REGN 2 CLINICAL FOUNDATIONS OF NURSING CARE (formerly REGN 61) – 5 Units
Limitation on Enrollment: Students must be enrolled in the nursing program
Corequisite: Students must be concurrently enrolled in REGN 1
Note: All students participating in clinical rotations must submit proof of drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.
Class Hours: 270 clinical total
The first clinical course leading to Registered Nursing licensure finds the student building a safe foundation for nursing care with basic nursing skill demonstration in the Clinical Skills Laboratory. Successful completion of basic nursing skills as vital signs, bathing, skin care, mobility, and bowel care are then applied to patient care in the hospital setting. The Clinical Skills Laboratory is utilized continuously throughout the course for more complex fundamental skills as medication preparation and administration, urinary catheterization, and sterile technique. Application of the theory presented in the corequisite course, REGN 1 Theoretical Foundations of Nursing Care, finds the student caring for adult and elderly adult medical-surgical patients. The student organizes nursing care through the nursing process; demonstrates effective communication; and maximizes opportunities for patient education.

REGN 10 THEORETICAL CONCEPTS OF MEDICAL SURGICAL NURSING I (formerly REGN 70) – 7 Units
Prerequisite: A grade of C or higher in each of the following courses: REGN 1 and REGN 2
Corequisite: Students must be concurrently enrolled in REGN 11 and REGN 12
Note: If not previously completed, all students participating in clinical rotations must submit proof of drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.
Class Hours: 126 lecture total
REGN 10 is a required prerequisite for REGN 20 and REGN 21. REGN 10 is a required course for the Associate Degree Nursing program at Shasta College. This course is one of three Corequisite courses that make up the second semester of the Associate Degree Nursing program. Building upon the content of REGN 1 and REGN 2, the students will expand their knowledge of medical surgical nursing. Foundational information regarding disease process, etiology, pathophysiology, and clinical manifestations begin each unit of study. Then, utilizing a nursing process matrix, medical surgical content is discussed in relationship to assessment, diagnosis, planning, nursing interventions, and evaluation. Independent, dependent, and collaborative nursing interventions are explored.

REGN 11 CLINICAL CONCEPTS OF MEDICAL SURGICAL NURSING I (formerly REGN 71) - 4.5 Units
Prerequisite: A grade of C or higher in each of the following courses: REGN 1 and REGN 2
Corequisite: Students must be concurrently enrolled in REGN 10 and REGN 12
Note: If not previously completed, all students participating in clinical rotations must submit proof of drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.
Class Hours: 243 clinical total
REGN 11 is a required prerequisite for REGN 20 and REGN 21. REGN 11 is a required course for the Associate Degree Nursing program at Shasta College. This course is one of three corequisite courses that make up the second semester of the Associate Degree Nursing program. Building upon the content of REGN 1 and REGN 2, the students will expand the fundamental clinical nursing skills they mastered. Students will have a variety of patient assignments on the medical, surgical, neurology, and orthopedic floors with special assignments in oncology, operating room, pre-anesthesia surgical suite, emergency room, gastroenterology lab, and respiratory therapy. Clinical skills will include receiving report, organizing their patient care, assessments, documentation, medication administration, intravenous therapy, venapuncture, blood administration, TPN/Lipid administration, accuchecks, and analyzing daily labs. Students will progress from providing care for a single patient to providing care to two increasingly complex patients. Emphasis is placed on the integration of theory and the nursing process into the clinical setting by use of organizational tools, clinical papers, chart review, and clinical conferences.

REGN 12 ASSESSMENT CONCEPTS OF MEDICAL SURGICAL NURSING (formerly REGN 72) - .5 Units
Prerequisite: A grade of C or higher in each of the following courses: REGN 1 and REGN 2
Corequisite: Students must be concurrently enrolled in REGN 10 and REGN 11
Note: If not previously completed, all students participating in clinical rotations must submit proof of drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.
Class Hours: 27 lab total
REGN 12 is a required prerequisite for REGN 20 and REGN 21 and is a required course for the Associate Degree Nursing program at Shasta College. This course is one of three corequisite courses that make up the second semester of the Associate Degree Nursing program. Building upon the content of REGN 1 and REGN 2 the students will expand the basic assessment skills they mastered. Clinical Skills Lab activities focus on detailed assessment skills. These skills include subjective and objective assessment activities. Subjective assessment skills include taking a complete patient history and using probing questions to explore key areas in more depth. Objective assessment skills include inspection, auscultation, percussion, palpation, and the use of specialized equipment. A key focus is how to individualize assessments based upon patient diagnosis and significant patient data.

REGN 20 THEORETICAL CONCEPTS OF FAMILY/MATERNAL-CHILD NURSING AND MEDICAL SURGICAL NURSING II (formerly REGN 90) – 7 Units
Prerequisite: A grade of C or higher in each of the following courses: REGN 10, REGN 11 and REGN 12
Corequisite: Students must be concurrently enrolled in REGN 21
Note: If not previously completed, all students participating in clinical rotations must submit proof of drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.
Class Hours: 126 lecture total
REGN 20 is a required course for the Associate Degree Nursing program at Shasta College and a required prerequisite for REGN 33 and REGN 34. This course is one of two corequisite courses that make up the third semester of the Associate Degree Nursing program. Building upon the content of REGN 10 and REGN 11 and REGN 12, the students will expand their knowledge of medical surgical nursing and examine the fundamentals of obstetrical and pediatric nursing. Concepts emphasized include family, communication, health promotion, illness prevention, teaching, cultural sensitivity, growth and development, nursing process, critical thinking, legal-ethical issues and advocacy.

REGN 20X SELECT THEORETICAL CONCEPTS OF FAMILY/ MATERNAL-CHILD NURSING AND MEDICAL SURGICAL NURSING II (NON-DEGREE) (formerly REGN 90X/REGN 91X) – 4 Units
Corequisite: Students must be concurrently enrolled in REGN 21X
Limitation on Enrollment: Students must be enrolled in the 30-unit option program
Note: This is the course for the non-degree, 30-unit option student. If not previously completed, all students participating in clinical rotations must submit proof of drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.
Class Hours: 72 lecture total
REGN 20X is designed for the Licensed Vocational Nurse enrolled in the 30-uinit non-degree program. It is a required prerequisite course for REGN 33X, and REGN 34X. This course is one of two corequisite courses that make up the 30-unit option program. The students will expand their knowledge of medical surgical nursing and examine complications in obstetrical and pediatric nursing. Concepts emphasized include family, communication, health promotion, illness prevention, teaching, cultural sensitivity, growth and development, nursing process, critical thinking, legal-ethical issues and advocacy.

REGN 21 CLINICAL CONCEPTS OF FAMILY/MATERNAL-CHILD AND MEDICAL SURGICAL NURSING II (formerly REGN 91) – 5 Units
Prerequisite: A grade of C or higher in each of the following courses: REGN 10, REGN 11 and REGN 12
Corequisite: Students must be concurrently enrolled in REGN 20
Note: If not previously completed, all students participating in clinical rotations must submit proof of drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.
Class Hours: 270 clinical total
REGN 21 is a required course for the Associate Degree Nursing program at Shasta College and a required prerequisite for REGN 33 and REGN 34. This course is one of two corequisite courses that make up the third semester of the Associate Degree Nursing program. Building upon the content of REGN 10, REGN 11 and REGN 12, the students will expand the fundamental clinical nursing skills they mastered. Students will have a variety of patient assignments on the obstetrical, pediatric, medical, surgical, oncology, and orthopedic floors with special assignments in the OB clinic, Shasta College preschool, home care agencies, the emergency department and pre-anesthesia unit. Clinical skills will include receiving report, organizing their patient care, assessments, documentation, medication administration, intravenous therapy, venapuncture, blood administration, TPN/Lipid administration, accuchecks, and analyzing daily labs. Students will progress from providing care for a single patient to providing care to up to three increasingly complex patients. Emphasis is placed on the integration of theory and the nursing process into the clinical setting by use of organizational tools, clinical papers, a nursing care plan, chart review, and clinical conferences.

REGN 21X CLINICAL CONCEPTS OF FAMILY/MATERNAL-CHILD AND MEDICAL SURGICAL NURSING II (NON-DEGREE) (formerly REGN 90X/REGN 91X) – 4 Units
Corequisite: Students must be concurrently enrolled in REGN 20X
Limitation on Enrollment: Students must be enrolled in the 30-unit option program
Note: This is the course for the non-degree, 30-unit option student. If not previously completed, all students participating in clinical rotations must submit proof of drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.
Class Hours: 216 clinical total
REGN 21X is designed for the Licensed Vocational Nurse enrolled in the 30-unit non-degree program. This course is one of two corequisite courses that make up the 30-unit option program. The students will expand the fundamental clinical nursing skills they mastered. Students will have a variety of patient assignments on the obstetrical, pediatric, medical, surgical, oncology, and orthopedic floors with special assignments in the OB clinic, Shasta College preschool, home care agencies, the emergency department and pre-anesthesia unit. Clinical skills will include receiving report, organizing their patient care, assessments, documentation, medication administration, intravenous therapy, venapuncture, blood administration, TPN/Lipid administration, accuchecks, and analyzing daily labs. Students will progress from providing care for a single patient to providing care to up to three increasingly complex patients. Emphasis is placed on the integration of theory and the nursing process into the clinical setting by use of organizational tools, clinical papers, a nursing care plan, chart review, and clinical conferences.

REGN 33 THEORETICAL CONCEPTS OF MENTAL HEALTH, COMMUNITY-BASED NURSING & MEDICAL SURGICAL NURSING III (formerly REGN 30/31; 80/81) – 6 Units
Prerequisite: A grade of C or higher in each of the following courses: REGN 20 and REGN 21
Corequisite: Students must be concurrently enrolled in REGN 34
Note: If not previously completed, all students participating in clinical rotations must submit proof of drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.
Class Hours: 108 lecture total
REGN 33 is one of the final required courses for the Associate Degree Nursing program at Shasta College and one of two corequisite courses that comprise the fourth semester of the Associate Degree Nursing Program. The course provides the conceptual basis of nursing care for patients in high acuity medical surgical, mental health and community—based settings. The emphasis of this course is on complex medical surgical conditions, fundamentals of mental health, community health nursing, fundamental concepts of nursing leadership, legal-ethical issues, current trends in practice, preparation for and successful completion of the licensing examination, and professional career development. The nursing process and critical thinking skills are emphasized. Students use the nursing process and critical thinking to plan, implement, and evaluate the acute and rehabilitative care of complex medical surgical and mental health patients. In addition to on-campus meetings, a portion of the course communication and activities will take place via the Internet. Students will need access to a computer with Internet access.

REGN 33X THEORETICAL CONCEPTS OF MENTAL HEALTH, COMMUNITY-BASED NURSING & MEDICAL SURGICAL NURSING III (NON-DEGREE) (formerly REGN 30X/31X; 80X/81X) – 6 Units
Prerequisite: A grade of C or higher in each of the following courses: REGN 20X and REGN 21X
Corequisite: Students must be concurrently enrolled in REGN 34X
Limitation on Enrollment: Students must be enrolled in the 30-unit option program
Note: This is the course for the non-degree, 30-unit option student. If not previously completed, all students participating in clinical rotations must submit proof of drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.
Class Hours: 108 lecture total
REGN 33X is one of the final required courses for the Associate Degree Nursing program at Shasta College and one of two corequisite courses that comprise the fourth semester of the Associate Degree Nursing Program. This course is only for the thirty-unit option student. The course provides the conceptual basis of nursing care for patients in high acuity medical surgical, mental health and community—based settings. The emphasis of this course is on complex medical surgical conditions, fundamentals of mental health, community health nursing, fundamental concepts of nursing leadership, legal-ethical issues, current trends in practice, preparation for and successful completion of the licensing examination, and professional career development. The nursing process and critical thinking skills are emphasized. Students use the nursing process and critical thinking to plan, implement, and evaluate the acute and rehabilitative care of complex medical surgical and mental health patients. In addition to on-campus meetings, a portion of the course communication and activities will take place via the Internet. Students will need access to a computer with Internet access.

REGN 34 CLINICAL CONCEPTS OF MENTAL HEALTH, COMMUNITY-BASED NURSING & MEDICAL SURGICAL NURSING III (formerly REGN 32, REGN 82) – 6 Units
Prerequisite: A grade of C or higher in each of the following courses: REGN 20 and REGN 21
Corequisite: Students must be concurrently enrolled in REGN 33
Note: If not previously completed, all students participating in clinical rotations must submit proof of drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.
Class Hours: 324 clinical total
REGN 34 is a required course for the Associate Degree Nursing program at Shasta College and one of two corequisite courses that comprise the fourth semester of the Associate Degree Nursing Program. Building upon the content of REGN 20 and 21 students expand previously learned clinical nursing skills to become increasingly independent. Students have assigned patients in a variety of clinical settings. For example, clinical rotations may include acute care, critical care, rehabilitation, mental health, and community health. Emphasis is placed on the integration of theory and the nursing process in the clinical setting through the use of clinical papers, clinical conferences, group projects, and nursing care plans. In addition to on-campus meetings and clinical rotations, a portion of the course communication and activities will take place via the Internet. Students will need access to a computer with Internet access.

REGN 34X CLINICAL CONCEPTS OF MENTAL HEALTH, COMMUNITY-BASED NURSING & MEDICAL SURGICAL NURSING III (NON-DEGREE) (formerly REGN 32X, REGN 82X) – 6 Units
Prerequisite: A grade of C or higher in each of the following courses: REGN 20X and REGN 21X
Corequisite: Students must be concurrently enrolled in REGN 33X
Limitation on Enrollment: Students must be enrolled in the 30-unit option program
Note: This is the course for the non-degree, 30-unit option student. If not previously completed, all students participating in clinical rotations must submit proof of drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.
Class Hours: 324 clinical total
REGN 34X is a required course for the Associate Degree Nursing program at Shasta College and one of two corequisite courses that comprise the fourth semester of the Associate Degree Nursing Program. This course is only for the thirty-unit option student. Building upon the content of REGN 20X and 21X students expand previously learned clinical nursing skills to become increasingly independent. Students have assigned patients in a variety of clinical settings. For example, clinical rotations may include acute care, critical care, rehabilitation, mental health, and community health. Emphasis is placed on the integration of theory and the nursing process in the clinical setting through the use of clinical papers, clinical conferences, group projects, and nursing care plans. In addition to on-campus meetings and clinical rotations, a portion of the course communication and activities will take place via the Internet. Students will need access to a computer with Internet access.

REGN 79 LVN – RN TRANSITION – 2 Units
Limitation on Enrollment: Current CA Licensed Vocational Nurse
Class Hours: 36 lecture total
This course is designed for the LVN transitioning into the role of the registered nurse. Skills and theory necessary for entering third semester of the Associate Degree Nursing Program are taught and evaluated.

RUSSIAN (RUSS)

Two years of high school foreign language with grades of "C" or better is equivalent to one semester of foreign language at Shasta College.

RUSS 1 ELEMENTARY RUSSIAN - 5 Units
Class Hours: 90 lecture total
This course is designed to give the student training in pronunciation, essentials of grammar, reading, writing and speaking in Russian. The student is also introduced to the customs and culture of the Russian people.

RUSS 2 ELEMENTARY RUSSIAN - 5 Units
Prerequisite: A grade of C or higher in RUSS 1, or Foreign Language Placement Level 2 or higher
Class Hours: 90 lecture total
This course is a continuation of RUSS 1. There is a continued emphasis on listening to and reading Russian (the receptive skills) and on speaking and writing Russian. Students expand their language skills and vocabulary. Also students improve the ability to ask and answer questions and to discuss daily life, current events, travel, and leisure time activities. In the process of learning the language, the student is introduced to the culture and people of Russia, its history, literature, art, architecture, music and ballet.

RUSS 3 INTERMEDIATE RUSSIAN – 5 Units
Prerequisite: A grade of C or higher in RUSS 2 or Foreign Language Placement Level 3 or higher
Class Hours: 90 lecture total
Designed for those who have had previous training in the Russian language. Review of grammar and sentence patterns with increased emphasis on speaking and useful patterns of the language. Students will read excerpts from works of Russian authors, study the culture of Russian speaking people, produce translations of various selections and develop their own writing skills.

RUSS 4 INTERMEDIATE RUSSIAN – 5 Units (P/NP Option)
Prerequisite: A grade of C or higher in RUSS 3 or Foreign Language Placement Level 4
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 90 lecture total
The fourth semester of Russian language study emphasizes conversation, literature, and composition. Review of grammar, syntax, and morphology is grounded in communicative contexts and in the study of literature, culture,and historical events significant to Russian speakers. Reading selections include Russian fiction, poetry, theatre, and journalism.

SIGN LANGUAGE (SL)

Two years of high school foreign language with grades of "C" or better is equivalent to one semester of foreign language at Shasta College.

SL 7 AMERICAN SIGN LANGUAGE V: GRAMMAR - 4 Units
Prerequisite: A grade of C or higher in SL 96
Class Hours: 72 lecture total
This course focuses on American Sign Language grammar and communication skills. ASL stories and literature are employed to give students the opportunity to learn and practice the rules of Deaf culture and the grammar of ASL. English grammar will be analyzed and the differences between the two languages discussed.

SL 80 DEAF CHALLENGES - 3 Units
Class Hours: 54 lecture total
This course covers four areas that have a large impact on people's development: society, family, education, and work. Students are made aware of the challenges deaf people face in these areas and how it influences their lives.

SL 81 EDUCATIONAL WORLD OF THE DEAF - 3 Units
Class Hours: 54 lecture total
This course focuses on the education of the deaf population from ancient times to the present. It addresses the cultural, physical and psychological effects on the way deaf people learn. Topics such as family relationships, cognitive development, and language acquisition are addressed.

SL 90 AMERICAN SIGN LANGUAGE I (formerly SPED 93A) - 4 Units (P/NP Option)
Advisory: Concurrent enrollment in SL 91
Class Hours: 72 lecture total
Designed to introduce student to basic skills in American Sign Language vocabulary, fingerspelling and grammatical structure. The student will gain the manual skills to engage in basic dialogue, visual cues and the receptive skills to understand general American Sign Language conversation. Topics include: American Sign Language as an independent language, the history of American Sign Language, the Deaf community and Deaf culture.

SL 91 AMERICAN SIGN LANGUAGE I SKILL BUILDING LAB (formerly SPED 95A) - 1 Unit (P/NP Option)
Corequisite: Student must be concurrently enrolled in, or have completed SL 90 with a grade of C or higher
Class Hours: 54 lab total
This course is designed to give students a lab environment to practice basic American Sign Language skills. The course will review vocabulary, sentence structure and visual, non-manual behaviors from SL 90 and give students a solid foundation in basic signing skills which will better prepare them for the next level of American Sign Language. The lab environment will provide visual structured activities. Approximately 75% of class time will be non-verbal interactions. Note: This class may be repeated one time for a total of two enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

SL 92 AMERICAN SIGN LANGUAGE II (formerly SPED 93B) - 4 Units (P/NP Option)
Prerequisite: A grade of C or higher in SL 90
Class Hours: 72 lecture total
This course is a continuation of American Sign Language I. Designed for the student desiring to increase vocabulary and fluency in performing and receiving American Sign Language information. Emphasis is on the structure of American Sign Language including lexical, morphemic and syntactical elements. The student will gain the manual skills to engage in descriptive, complex dialogue and stories at a moderate skill level. Topics include American Sign Language contrast and comparisons to other languages, language development and acquisition, and societal and legal issues.

SL 93 AMERICAN SIGN LANGUAGE II SKILL BUILDING LAB (formerly SPED 95D) - 1 Unit (P/NP Option)
Corequisite: Students must be concurrently enrolled in, or have completed SL 92 with a grade of C or higher
Class Hours: 54 lab total
This course is designed to give students a lab environment in which to practice new vocabulary and structure learned in SL 92, American Sign Language II, and will review vocabulary, sentence structure and visual, non-manual behaviors learned from SL 92. Students will be involved in structured class assignments in order to utilize signing skills and increase fluency to a moderate rate in preparation for success in SL 94. Note: No verbal communication allowed in lab. This course may be taken up to two times for a total of two enrollments since skills and proficiencies are enhanced by supervised repetition and practice.

SL 94 AMERICAN SIGN LANGUAGE III (formerly SPED 93C) - 4 Units (P/NP Option)
Prerequisite: A grade of C or higher in SL 92 and a grade of C or higher in SL 93
Class Hours: 72 lecture total
This course is intended for students who plan to use American Sign Language in their daily lives. Success in this course will enable students to communicate with deaf and hard-of-hearing individuals through sign language at an average rate of speed and build confidence in their use of the language. Students will study basic qualities and skills needed to interpret including topics such as: the interpreting process, an overview of the Code of Ethics, expectations, and simultaneous interpreting practice. Exposure to Deaf culture through class discussions and guest lecturers will be incorporated.

SL 96 AMERICAN SIGN LANGUAGE IV- 4 Units (P/NP Option)
Prerequisite: A grade of C or higher in SL 94
Class Hours: 72 lecture total
This course is intended for students who plan to use American Sign Language in their daily lives. Success in this course will enable students to communicate with deaf individuals through sign language at an average rate of speed and build confidence in their use of the language, storytelling ability and presentation. Students will study qualities and skills needed to become interpreters. Students will be exposed to a variety of members and activities of the Deaf community.

SKILLS DEVELOPMENT (SDEV)

SDEV 301 PRE-GED TEST PREPARATION – 0 Units
Advisory: A grade of C or higher ENGL 250 or English Placement Level 2 or higher
Class Hours: 54-108 lab total
This is a course to prepare the student at the 6th- to 8th-grade reading level for GED (General Educational Development) Test level work and to enable students to apply the knowledge gained to real-life situations. Course content includes skill building and test-taking practice in the areas of reading, writing, social studies, science and mathematics. The purpose of this class is to provide the necessary foundation for the student to tackle GED-level work.

SDEV 302 GED TEST PREPARATION – 0 Units
Advisory: A grade of C or higher ENGL 260 or English Placement Level 3 or higher
Class Hours: 54-108 lab total
This is a course to prepare the student to pass the General Educational Development (GED) Test and to enable students to apply the knowledge gained to real-life situations. Course content includes skill building and test-taking practice in the areas of reading, writing, social studies, science and mathematics. The purpose of this class is for the student to successfully pass all five parts of the GED 2002 examination.

SOCIOLOGY (SOC)

SOC 1 INTRODUCTION TO SOCIOLOGY - 3 Units (CAN# SOC 2) (P/NP Option)
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher, or ESL 138 or ESL Placement Level 7 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course examines the basics of sociology--the study of society. Sociology examines the interactions among social institutions, cultures, groups, and individuals. This course will focus on how unequal power relations organize the social world and shape individual lives, and how individuals negotiate their lives in different social and economic contexts. The course will examine a broad array of topics using a variety of theoretical perspectives and sociological research methods. The primary goal of this course is to recognize how people's experiences are shaped by social forces and reshaped through human action. This course may be offered in a distance learning format.

SOC 2 SOCIAL PROBLEMS - 3 Units (CAN# SOC 4) (P/NP Option)
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher, or ESL 138 or ESL Placement Level 7 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course examines several social problems from a sociological perspective. This approach makes two major assumptions. First, individuals are products of their social environment. Questions such as who we are, what we believe, what we strive for, and how we feel about ourselves, etc. have to be addressed by analyzing the society in which we live. This requires the use of the "Sociological Imagination" or looking at human attitudes, behaviors and feelings in the context of the social forces and institutional arrangements that shape them. Second, because sociology considers social structures responsible for social problems, we need to adapt a critical stance towards all social forms. This approach will help foster a more critical sociological approach to social problems. This course may be offered in a distance learning format.

SOC 15 SOCIOLOGY OF MASS MEDIA - 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher, or ESL 138 or ESL Placement Level 7 or higher.
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
This course examines the central role media plays in daily life. Starting from a microsociological standpoint, students will examine how knowledge and experiences are increasingly mediated by the mass media in its various forms. The course also explores the effect of media, including television, radio, newspapers, and the Internet, on social institutions which in turn permeate and shape public policy, the economy, education, and even the family. The course will examine ways in which mass media contributes to social/cultural power and stratification and will use the "process of mutual determination" to examine the relationship between media, individuals, and society. This course may be offered in a distance learning format.

SOC 22 SOCIOLOGY OF AGING - 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher, or ESL 138 or ESL Placement Level 7 or higher
Class Hours: 54 lecture total
The consequences of demographic, economic, and social trends associated with population aging are challenging policy makers around the globe. This course will examine these processes as they affect individuals, families, and societies. Course content will examine themes surrounding aging and social policy in order to better understand the social context that contributes to enhancing or diminishing the quality of life in old age. Areas of analysis include: health care rationing, family versus government responsibility, Social Security, retirement, changing norms and values, the elderly and the life course. This course may be offered in a distance learning format.

SOC 25 SOCIOLOGY OF MINORITIES - 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher or ESL 138 or ESL Placement Level 7 or higher
Class Hours: 54 lecture total (when offered in the Distance Education format, hours will total 162)
The purpose of this course is to introduce students to the sociological study of race and ethnicity in the United States. This course will explore the relations between racial and ethnic minorities and the larger society. The histories of employment, educational options, civil and legal rights and social experiences will be viewed as they reflect race, ethnic and gender biases in our institutions. We will also focus on how different groups resisted oppression and actively shaped a more democratic America. This course may be offered in a distance learning format.

SOC 70 SOCIAL WELFARE - 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 54 lecture total
This course introduces the beginning student to various fields of social welfare and social work. The class will focus on current and historical perspectives on the effects of social problems such as poverty, emotional difficulties, sexism, crime, racism, and child abuse. Through discussions, lectures and guest speakers, students will be introduced to basic terminology, methods, and concepts necessary to understand the profession of social work.

SPANISH (SPAN)

Two years of high school foreign language with grades of "C" or better is equivalent to one semester of foreign language at Shasta College.

SPAN 1 ELEMENTARY SPANISH - 5 Units (P/NP Option) (CAN # SPAN 2) (SPAN SEQ A)
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5
Class Hours: 90 lecture total
This introductory course is designed to give the student thorough and intense practice in speaking and listening to Spanish, and reading and writing in Spanish, with special emphasis on grammar and pronunciation. The course will focus on communicative competence in situations relating to daily routines, home life, college life, and everyday activities such as meeting and describing people; finding out about schedules, directions, and locations; discussing weather, eating, and holidays. Students are introduced to the culture of Spanish-speaking people in general and to specific customs and cultural characteristics of various Spanish-speaking countries.

SPAN 2 ELEMENTARY SPANISH - 5 Units (P/NP Option) (CAN # SPAN 4) (SPAN SEQ A)
Prerequisite: A grade of C or higher in SPAN 1, or Foreign Language Placement Level 2 or higher
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 90 lecture total
This course is a continuation of SPAN 1. There is continued emphasis on listening to and reading Spanish (receptive skills) and on speaking and writing Spanish. Students expand their language skills and vocabulary. Students also improve their ability to ask and answer questions and to discuss current events, health, food, travel, leisure time and activities, and shopping. The course will focus on communicative competence in situations relating to the aforementioned areas and also to art, music, commerce, family, and the future. Students learn to express themselves in Spanish regarding these topics as they relate to the culture of Spanish-speaking people in general and to some specific Spanish-speaking countries.

SPAN 3 INTERMEDIATE SPANISH - 3 Units (CAN# SPAN 8) (SPAN SEQ B) (P/NP Option)
Prerequisite: A grade of C or higher in SPAN 2, or Foreign Language Placement Level 3 or higher
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 54 lecture total
This course is a continuation of SPAN 2. SPAN 3 includes a compact, detailed review of first-year material as well as new vocabulary and expansion of first-year principles, development of more advanced communication and composition skills, and verb tenses and structures. This course offers extensive conversational exercises with stress on correct pronunciation. The course also includes an introduction to Spanish and Latin American literature and further discussion of the arts in general, particularly as they relate to the culture of the Spanish-speaking countries.

SPAN 4 INTERMEDIATE SPANISH - 3 Units (CAN# SPAN 10) (SPAN SEQ B) (P/NP Option)
Prerequisite: A grade of C or higher in SPAN 3, or Foreign Language Placement Level 4
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 54 lecture total
This course is a continuation of SPAN 3. SPAN 4 (along with SPAN 3) comprises a compact, detailed review of first-year material as well as new vocabulary and expansion of first-year principles, development of more advanced communication and composition skills, and a more comprehensive overview of verb tenses and structures. This course offers extensive conversational exercise with stress on correct pronunciation. The course also includes further discussion of Spanish and Latin American literature and of the arts in general, particularly as they relate to the culture of Spanish-speaking countries.

SPAN 19 SPANISH CONVERSATION AND CULTURE – 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in SPAN 2, or Foreign Language Placement Level 3
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 54 lecture total
Intense practice in the spoken language with the objective of increasing vocabulary and improving speech patterns as well as pronunciation by giving oral presentations, conversing, and analyzing Spanish phonology.

SPAN 20 SPANISH CONVERSATION AND PHONOLOGY - 3 Units (P/NP Option)
Prerequisite: A grade of C or higher in SPAN 3, or Foreign Language Placement Level 4
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 54 lecture total
Intense practice in the spoken language with the objective of perfecting speech patterns as well as the sound system and increasing vocabulary by giving oral presentations, conversing, and analyzing elementary Spanish phonology.

SPAN 151 INTRODUCTION TO SPANISH TERMINOLOGY (formerly SPAN 151AB) - 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 54 lecture total
This course will help those students who want to learn Spanish vocabulary and grammar in order to facilitate very basic communication in everyday workplace and social situations. Students are introduced to pronunciation and minimum essentials of Spanish grammar. This course is a survey of basic vocabulary, numbers (1-100), some terminology useful in the workplace, practice of simple phrases, intense practice in comprehending simple phrases and practice in responses to simple phrases given within the context of a professional or vocational situation.

SPAN 197 SPECIAL TOPICS IN SPANISH - .5 - 3 Units (P/NP Option)
Advisory: A grade of C or higher in ENGL 280, or English Placement Level 5 or higher
Class Hours: 9-54 lecture total
This course is designed to meet the needs of professional personnel who work with Spanish-speaking clients. Essentials of Spanish pronunciation and grammar are introduced, along with commands and the two past tenses. Communicative skills will be emphasized through role-plays of realistic situations, practiced dialogues, and study of specialized vocabulary related to the profession.

SPEECH

See CMST – Communication Studies

STUDENT DEVELOPMENT (STU)

STU 1 COLLEGE SUCCESS (formerly GS 1) - 3 Units
Class Hours: 54 lecture total
This course is designed to assist students in obtaining the skills and knowledge necessary to reach their educational objectives. Topics covered include: motivation and discipline, memory development, time and stress management, career and transfer planning, and a wide variety of study skills and techniques for success.

STU 10 INTRODUCTION TO PEER TUTORING (formerly GS 10) - .5 Unit (P/NP Option)
Class Hours: 9 lecture total
Practical skills necessary to function as a peer tutor, to train in human relation techniques, individual differences in learning styles, the importance of independence, good study habits and educational methods used to promote good learning. The course may be offered in other formats for distance learning.

STU 50 GETTING CONNECTED: AN ORIENTATION TO COLLEGE (formerly GS 50) - .5-1 Unit
Class Hours: 9-18 lecture total
This course includes an orientation to the educational opportunities, programs and services available at Shasta College as well as the procedures for accessing them. In the one unit version of the course students will deepen their sense of educational purpose and commitment through developing effective “Education Plans” and building “Connections for Success.” This course is appropriate for all students. It fulfills the orientation requirement for priority registration.

STU 70 COLLEGE STUDY AND LEARNING SKILLS (formerly ENGL 171) - 1 Unit (P/NP Option)
Class Hours: 18 lecture total
Designed to help non-traditional and traditional students to develop learning skills and to achieve the greatest amount of competency in their college class work. The class will help the student to take notes effectively, read and study course materials, prepare for exams, and complete written assignments.

STU 90 CAREER CHOICE (formerly GS 90) - 1 Unit (P/NP Option)
Class Hours: 18 lecture total
A course designed for students who are undecided about their educational and/or career goals. Through a series of group exercises, and career development testing, students learn to identify personal values, interests, skills, aversions, and personality patterns and understand how they relate to choices in the world of work. Students learn to access occupational information, develop decision-making skills and set career goals.

STU 92 WORKSITE READINESS (formerly GS 92) – 1 Unit (P/NP Option)
Class Hours: 18 lecture total (when offered in the Distance Education format, hours will total 54)
Designed to prepare students to be successful on the job. Students will gain insight into employer expectations, effective workplace attitudes, developing job-related communication skills, conflict resolution, and managing stress. Emphasis will be placed on maximizing learning opportunities in the workplace, the development of effective networking skills, personal skills-acquisition plan, and building a job search campaign. This course may be offered in a distance learning format.

STU 100 CAREER VALUE EXPLORATION (formerly STSV 100) - .5 Unit
Class Hours: 9 lecture total
A career motivation program which helps individuals better understand themselves and their place in the career world through a series of group activities which identify each student's successes, strengths, values, interests, abilities, and personality patterns.

STU 310 GENERAL TUTORING LAB/SUPERVISED TUTORING (formerly GS 310) - 0 Units
Class Hours: TBA
This course is open to all students in all classes unless otherwise delineated. Individualized sessions are designed to assist the student in overcoming a learning barrier and/or to master a particularly difficult portion of the course.

STU 393 TARGETED JOB SEARCH (formerly GS 393 and BUAD 393) - 0 Units
Class Hours: 7 lecture total
Integrating into the workforce is a challenging yet rewarding endeavor. This workshop emphasizes hands-on development of strategies and techniques appropriate to job search. Students will be introduced to a focused approach to attaining employment.

THEATRE ARTS (THTR)

THTR 1 INTRODUCTION TO THEATRE ARTS - 3 Units (CAN # DRAM 18)
Class Hours: 54 lecture total
This course is a survey of Theatre Arts including dramatic structure, performance style, plays, terminology, history, criticism, and stagecraft. Students will develop an appreciation for the theatre arts through lectures, viewing, critiquing, and participating in college productions. This course fulfills the Arts requirement for General Ed transfer and is required for the Theatre Certificate.

THTR 5 20TH CENTURY THEATRE - 3 Units
Advisory: A grade of C or higher in ENGL 190, or English Placement Level 6 or higher
Class Hours: 54 lecture total
This is a survey course in trends and developments of 20th Century theatre. Major playwrights (Ibsen, Chekhov, Miller), personalities (Craig, Artaud), and theatre innovators (Brecht) of this century will be examined. Mainstream and radical influences as well as the impact of technology on plays and performances will be discussed. This course fulfills the Arts requirement for General Ed. Transfer and is required for Theatre majors.

THTR 8 THEATRE APPRECIATION I - 3 Units
Class Hours: 54 lecture total
In this course students will read a selection of plays from the Greeks to Elizabethan eras. They will learn about the historical context of each play and how to interpret and transform scripts for production. Topics include historical development and context, text analysis, acting style, theme, language, diction, set, audience, gender issues, special effects, and cultural significance. Theatre Appreciation I or II is required for the Theatre Certificate.

THTR 9 THEATRE APPRECIATION II - 3 Units
Class Hours: 54 lecture total
In this course students will read a selection of plays from the Jacobean to the Contemporary eras. They will learn about the historical context of each play and how to interpret and transform scripts for production. Topics include: historical development and context, text analysis, acting style, theme, language, diction, set, audience, gender issues, special effects, and cultural significance. Theatre Appreciation I or II is required for the Theatre Certificate.

THTR 12 ACTING FOR THE STAGE I - 2 Units
Class Hours: 18 lecture/54 lab
This course teaches the fundamentals of what it is to be an actor. Topics covered include the use of senses, the voice, the body, emotions and building a character. Students participate in individual and group exercises, theatre games and acting projects. Students learn the vocabulary of acting and view/critique on-campus productions. This course is required for theatre majors; non-majors are welcome. This course may be repeated once for a total of two enrollments since skills are enhanced by supervised repetition and practice.

THTR 13 ACTING FOR THE STAGE II – 2 Units
Advisory: A grade of C or higher in THTR 12
Class Hours: 18 lecture/54 lab total
This course offers detailed application of techniques explored in beginning acting. These areas include: styles, articulation, analysis of emotional content of dramatic texts, mask and movement work. In this course the voice and body are used as creative and interpretive tools. Designed for the Theatre Arts Core Program, acting and directing concentration; may not be challenged, must be taken for a grade, and is transferable. This course may be repeated once for a total of two enrollments since skills are enhanced by supervised repetition and practice.

THTR 20 READER'S THEATRE (formerly THTR 20AD) - 1-3 Units
Class Hours: 54-162 lab total
A course dealing with the oral presentation of literature by two or more readers. Areas of study will include character development, performance techniques, material selection, analysis and adaptation, vocalization, and interpretation of scripts. Participation in public performances on and off campus is required. Note: Since subject matter varies each time the course is taught, this course may be repeated three times for a total of four enrollments.

THTR 21 ONE-ACT PRODUCTIONS (formerly THTR 21AD) – 1-3 Units
Class Hours: 54-162 lab total
In this course, students produce and publicly perform one-act plays. Students will attend rehearsals and performances, and discuss plays as they progress. This course may be repeated three times for a total of four enrollments.

THTR 23 MAINSTAGE PRODUCTION I - DRAMA (formerly THTR 23AD) - 1-4 Units
Class Hours: 54-216 lab total
In this course students rehearse, prepare and perform a mainstage play. The course is required for theatre majors, non-majors are welcome. Note: Since subject matter varies each time the course is taught, it may be repeated three times for a maximum of four enrollments.

THTR 24 MAINSTAGE PRODUCTION II - MUSIC (formerly THTR 24AD) - 1-4 Units (P/NP Option)
Class Hours: 54-216 lab total
A course which focuses on the rehearsal and performance of the musical elements of a major dramatic work. Note: Since subject matter varies each time the course is taught, it may be repeated three times for a maximum of four enrollments.

THTR 25 MAINSTAGE PRODUCTION II - CHOREOGRAPHY (formerly THTR 25AD) - 1-4 Units (P/NP Option)
Class Hours: 54-216 lab total
A course that teaches basic stage movement and dance for large cast plays and music theatre. Class projects and rehearsal activities will include participation in choreography in class or in theatre productions. Note: The authors, genre, and production styles will change each time this class is taught; therefore, it may be repeated three times for a maximum of four enrollments.

THTR 26 MAINSTAGE PRODUCTION II - DRAMA (formerly THTR 26AD) - 1-4 Units (P/NP Option)
Class Hours: 54-216 lab total
A course which focuses on the rehearsal and dramatic performance of a large cast dramatic work or musical. Note: Since subject matter varies each time the course is taught, it may be repeated three times for a maximum of four enrollments.

THTR 29 DIRECTING (formerly THTR 22EH) - 2 Units (P/NP Option)
Class Hours: 18 lecture/54 lab total
This course is designed to introduce the student to the background, function and techniques of the stage director. Included in the course will be an investigation of the principles involved in script selection and interpretation, the fundamentals of casting, rehearsal techniques, blocking, aims and conduct, rehearsal scheduling, and the preparation of a director's prompt book. Students should have previous experience in theatre performance and production. Note: This course may be repeated three times for a total of four enrollments since course content varies and skills are enhanced by supervised repetition and practice.

THTR 30 STAGECRAFT I - 3 Units (P/NP Option) (CAN # DRAM 12)
Class Hours: 54 lecture total
This course focuses on backstage procedures and how to operate the equipment used in creating stage scenery, lighting, sound, and special effects. Students will learn the fundamentals of backstage operations. They will learn how to operate hand and power tools; construct and rig scenery; identify, handle, and control lighting equipment; and organize production crews.

THTR 31 STAGECRAFT II (formerly THTR 35) - 3 Units (P/NP Option)
Class Hours: 54 lecture total
This course focuses on the design, management and coordination of the technical elements of a theatrical production. Students will design stage settings, light plots, and stage properties. They will learn the duties of the stage manager and the production coordinator.

THTR 33 STAGE MANAGEMENT (formerly THTR 22IL) – 2 Units (P/NP Option)
Class Hours: 27 lecture/27 lab total
This course will introduce the student to the functions of the stage manager. Students will develop an understanding of how to coordinate a production team, including directors, designers, technicians, operators, actors and house personnel. Students will learn methods of production organization including scheduling, cueing, notating, reading floor plans, set changes, and rehearsal and performance protocols.

THTR 34 MAKEUP - 2 Units (P/NP Option) (CAN # DRAM 14)
Class Hours: 27 lecture/27 lab total
This course is designed to introduce the student to the principles and practical application of stage makeup. Emphasis will be given to facial structure, character analysis, makeup selection and application, facial modeling, three-dimensional techniques, false hair and corrective makeup. The student will demonstrate his/her understanding through actual application in the classroom and as a member of a makeup crew for a specific play production, special exercise or project.

THTR 37 THEATRE MANAGEMENT - 3 Units
Class Hours: 45 lecture/27 lab
In this course students learn the business of theatre management, organization and administration. Season selection, budget, staff organization, scheduling, box office operations, promotion and publicity are among the topics covered. This course is required for theatre majors; non-majors are welcome.

THTR 41 THEATRE LABORATORY (formerly THTR 41AD) - .5-4 Units (P/NP Option)
Class Hours: 27-216 lab hours total
A laboratory course in which the student will received supervised practical experience and training in theatrical productions. Students may work progressively in one or more of the following areas: scenery construction, fabrication and rigging; console operations; stage management; lighting; sound; costumes; wardrobe; properties; make-up; publicity; house management; concessions, and running crews. Upon approval of the instructor, students may direct and participate in the preparation, rehearsal, and performance of student directed productions. Note: Since subject matter varies each time the course is taught, it may be repeated three times for a maximum of four enrollments.

THTR 42 STAGE PRODUCTION LABORATORY (formerly THTR 42AD) - .5-4 Units (P/NP Option)
Class Hours: 27-216 lab total
A laboratory course in which the student will participate in one or more of the following production areas: scenery construction, set decorations, lighting, sound, costumes, properties, makeup, stage management and publicity. The course will focus on the technical requirements of a stage production. Note: Since subject matter varies each time the course is taught, it may be repeated three times for a maximum of four enrollments.

THTR 50 STAGE PRODUCTION - DRAMA (formerly THTR 50AD) - 1-3 Units (P/NP Option)
Class Hours: 54-162 lab total
A production course designed to provide experience in creating public performances, including but not limited to dance, music, theatre and concerts. Note: Since subject matter varies each time the course is taught, it may be repeated three times for a maximum of four enrollments.

THTR 51 STAGE PRODUCTION-CHOREOGRAPHY (formerly THTR 51AD) - 1-3 Units (P/NP Option)
Class Hours: 54-162 lab total
A course in class or rehearsal sessions to teach basic stage movement and dance for a stage production. Class projects will include participation in choreography in the class or in stage productions. Note: Since subject matter varies each time the course is taught, it may be repeated three times for a maximum of four enrollments.

THTR 52 STAGE PRODUCTION - MUSIC - (formerly THTR 52AD) 1-3 Units (P/NP Option)
Class Hours: 54-162 lab total
A course in class or rehearsal sessions to teach the use of vocal and instrumental music for stage. Class projects will include participation in classroom activities and/or productions. Note: Since subject matter varies each time the course is taught, it may be repeated three times for a maximum of four enrollments.

THTR 60 SPECIAL PROJECTS-PRODUCTION (formerly THTR 60AD) - 1-4 Units
Class Hours: 54-216 lab total
A course that provides specialized training in specific areas of a current production. The focus of instruction will be in training students to perform disciplined tasks within the context of a scheduled theatrical event, e.g. special vocal skills, acting methods, stage lighting, scenography, script writing, choreography, makeup, puppetry, stagecraft, and/or other techniques needed to satisfy and complement a specific theatrical performance. Note: Since subject matter varies each time the course is taught, it may be repeated three times for a maximum of four enrollments.

THTR 61 COSTUMING LABORATORY(formerly THTR 22AD) - 1-3 Units (P/NP Option)
Class Hours: 54-162 lab total
A course that focuses on special projects in costume building for stage productions. Students will receive special instruction in sewing techniques for the stage, pattern drawing, the costumer's function during the running of a show and costume maintenance. Note: Since subject matter varies each time the course is taught, it may be repeated three times for a maximum of four enrollments.

THTR 70 REPERTORY THEATRE I - 1-10 Units
Class Hours: 54-540 lab total (54 hours per unit)
In this course students will rehearse and perform major dramatic works in a repertory theatre format. Students will participate in a theatrical company/ensemble. They will share in the preparation, rehearsal, promotion, and public performance of a series of plays, musicals, or theatrical productions. Note: Since subject matter varies each time the course is taught, it may be repeated three times for a maximum of four enrollments.

THTR 74 REPERTORY THEATRE - TECHNICAL - 1-10 Units
Class Hours: 54-540 lab total (54 hours per unit)
A laboratory course in which student will gain work experience and training in technical Repertory Theatre practices. Students may work progressively in one or more of the following areas: scenery construction, fabrication and rigging; console operations; stage management; lighting; sound; costumes, wardrobe; properties; make-up; publicity; house management; concessions, and running crews. Note: Since subject matter varies each time the course is taught, it may be repeated three times for a maximum of four enrollments.

THTR 81 INTRODUCTION TO PLAYWRITING (Drama: Play, Performance & Perception)- 2 Units (P/NP Option)
Class Hours: 18 lecture/54 lab total
An examination of the elements of the dramatic script. The course consists of four main areas of investigation: critiquing the script; playwrights; plotting and theatre conventions; creating motivated characters--heroes, heroines, villains and foils. This course will guide the student toward creating scripts and analyzing their problems and help them distinguish drama from the performed theatre, i.e., scenarios for action.

THTR 97 SPECIAL STUDIO TOPICS: THEATRE - 1-3 Units (P/NP Option)
Class Hours: 54-162 lab total
This course is designed to give students studio-based instruction and experience in a variety of theatre processes and techniques not regularly covered in other theatre courses. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for Theatre majors; open to anyone with an interest in the topic. Note: This course may be repeated three times for a total of four enrollments.

THTR 98 SPECIAL TOPICS: THEATRE – 1-3 Units (P/NP Option)
Class Hours: 18-54 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge and contemporary issues in the field of theatre. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for Theatre majors; open to anyone with an interest in the topic. Note: This course may be repeated three times for a total of four enrollments.

THTR 153 COMMUNITY DRAMA I - 1-3 Units (P/NP Option)
Class Hours: 54-162 lab total
Designed specifically for small community groups in off campus facilities, providing experience in the acting and technical production of scene, one-act, and small cast plays. Students will be involved in the staging and rehearsal of scenes and plays to be performed during class in the following areas: acting, makeup, lighting, sound, scenery development, costuming, stage management, and publicity. Students will observe rehearsals and performances and discuss plays as they progress. Note: Since subject matter varies each time the course is taught, it may be repeated three times for a maximum of four enrollments.

THTR 301 APPLIED THEATRE TECHNIQUES-TECHNICAL (formerly THTR 301AD) - 0 Units
Class Hours: 9-162 lab total
Course is designed to allow involvement in the production of a dramatic event for those with a particular interest in costuming, prop building, makeup, set building, sound and lighting, or other theatre related technical skills. Students will be exposed to learning new skills as well as applying skills already learned in a practical manner.

THTR 302 APPLIED THEATRE -DRAMATIC - 0 Units
Class Hours: 9-162 lab total
This course is designed to allow those interested in appearing in a dramatic presentation to become involved in a specific production. Although new skills will be acquired, such as audition techniques, casting practices, orientation to repertory procedures, and introduction to theatre administration, the major emphasis of the class will be directed toward the preparation of a stage production.

VETERINARY TECHNICIAN

See AGVETT for course listings

VOCATIONAL NURSING (VOCN)

See Also: HEOC and REGN

VOCN 160 FOUNDATIONS OF NURSING PRACTICE - 15 Units
Limitation on Enrollment: Students must be enrolled in the Vocational Nursing Program
Note: All students participating in clinical rotations must submit proof of drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.
Class Hours: 144 lecture/378 lab total
VOCN 160 is the beginning sequence of three required courses for the Vocational Nursing Program. The emphasis of this course is development of fundamental nursing skills. Theory content includes role of the vocational nurse, nursing trends, interpersonal relationships, disease processes, and pharmacology. The student practices fundamental nursing skills in the Clinical Skills Laboratory prior to clinical assignment in long-term and acute care settings.

VOCN 161 NURSING OF ADULTS - 13 Units
Prerequisite: A grade of C or higher in VOCN 160
Note: If not previously completed, all students participating in clinical rotations must submit proof of drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.
Class Hours: 144 lecture/288 lab total
VOCN 161 is the second required course in the Vocational Nursing Program. The emphasis of this course is towards application of the nursing process in acute care settings. Theory content includes care of patients with common medical surgical problems. The student develops competence in administration of medications and varied therapeutic skills to assigned patients with safety and increasing confidence. Assignments include practice in the Clinical Skills Laboratory and medical, surgical, and orthopedic areas in acute care settings. Students may be assigned in such optional areas as operating room and recovery room for follow-through experience with their assigned surgical patients and in an ambulatory center.

VOCN 162 NURSING OF ADULTS AND CHILDREN (formerly VOCN 161B) - 13 Units
Prerequisite: A grade of C or higher in VOCN 161
Note: If not previously completed, all students participating in clinical rotations must submit proof of drug screening and a background check prior to going into clinical facilities. Students are financially responsible for meeting these requirements according to the established program process.
Class Hours: 144 lecture/288 lab total
VOCN 162 is the last required course in the Vocational Nursing Program. The emphasis of this course is on principles of nursing care for maternity, newborn, pediatric patients, and continuing care of patients with more complex medical surgical problems. Supervision/leadership skill behaviors are introduced in the long-term care setting. Assignments include clinical experience in the acute care, long-term care, home-care setting, medical, surgical, obstetrics (including nursery), pediatrics, acute progressive care, and outpatient clinics.

WATER TREATMENT TECHNOLOGY (WTT)

WTT 177 INTRODUCTION TO WASTEWATER TREATMENT (formerly NR 177) - 3 Units (P/NP Option)
Class Hours: 54 lecture total
Designed to provide the student with a general background in the design, operation, and maintenance of water and wastewater treatment plants and to prepare the experienced operator for certification examinations. This course is directed to primarily towards entry-level operators, industrial waste inspection, lab technicians, maintenance personnel, and related occupations. Explains how and why treatment of wastewater protects the environment.

WTT 180 INTRODUCTION TO WATER TREATMENT TECHNOLOGY (formerly NR 180) - 3 Units (P/NP Option)
Class Hours: 54 lecture total
This course is designed to provide the student with a general background in the design, operation, and maintenance of water treatment plants and prepares the experienced operator for the State Water Treatment Plant Operator Certification examination.

WTT 181 INTERMEDIATE WATER TREATMENT TECHNOLOGY (formerly NR 181) - 3 Units
Advisory: A grade of C or higher in WTT 180
Class Hours: 54 lecture total
A course in water supply and treatment, covering historical development of water quality control practices, water sources, public health aspects of water supply, chemical treatment, and evaluation of the various treatment processes. Will prepare the experienced operator for certification examinations.

WTT 183 INTERMEDIATE WASTEWATER TREATMENT (formerly NR 183) - 3 Units (P/NP Option)
Class Hours: 54 lecture total
To provide the student with a general background in advanced wastewater treatment processes, and prepare the operator for advance certification examinations.

WTT 184 SMALL WATER SYSTEMS AND DISTRIBUTION (formerly NR 184) - 3 Units
Advisory: A grade of C or higher in WTT 180
Class Hours: 54 lecture total
Designed to provide the student with a general background in the design, operation, and maintenance of small water systems and water distribution systems, and prepares the experienced operator for the State Water Treatment Plant and Distribution Operator Certification Examinations.

WTT 186 ADVANCED WASTEWATER TREATMENT (formerly NR 186 and NR 182) - 3 Units (P/NP Option)
Advisory: A grade of C or higher in WTT 177 or a grade of C or higher in WTT 183
Class Hours: 54 lecture total
Designed to provide the student with a more in-depth background in the design, operation, and maintenance of wastewater treatment plants and to prepare the experienced operator for higher level certification examinations.

WELDING TECHNOLOGY (WELD)

WELD 56 WELDING (formerly IART 56) - 2 Units
Note: Students must provide safety glasses and welding gloves, and those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 18 lecture/54 lab total
A course in general welding includes both oxyacetylene and arc welding in the four positions on ferrous and non-ferrous metals and their alloys. Repair welding, welding symbols, trade terminology, care and use of various types of welding equipment and safety procedures.

WELD 70 BEGINNING WELDING - 3 Units
Note: Students must provide safety glasses and welding gloves, and those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 36 lecture/72 lab total
A beginning course designed for the student interested in acquiring basic welding skills to be used in a trade or service occupation. Emphasis is placed on oxyacetylene and arc welding in all positions.

WELD 94 WORKSITE LEARNING FOR WELDING TECHNOLOGY - 1-4 Units
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. To maintain financial aid eligibility a student must maintain enrollment in six units, not including Worksite Learning during the semester.
Class Hours: 75 hours paid or 60 hours non-paid per unit
The Vocational Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student and related to the student's major. A faculty member supervises all WSL courses to ensure that the work experience is of educational value. The course stresses good work habits and meeting of competencies through actual on the job performance. This course may be repeated three times for a maximum of 16 units or four total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

WELD 130 GENERAL WELDING/SHOP AND METALS (formerly WELD 130AB and WELD 230AB) - 1 Unit (P/NP Option)
Note: Students must provide safety glasses and welding gloves, and those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 54 lab total
Designed for students interested in the fundamentals of metalworking. Subject areas and activities will emphasize metal identification, proper and safe use of hand tools, power tools, bench metals, welding, and machine tool operations. Note: This course may be repeated three times for a total of four enrollments since the course content varies and skills are enhanced by supervised repetition and practice.

WELD 170 INTRODUCTION TO ARC WELDING - 3 Units
Note: Students must provide safety glasses and welding gloves, and those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 36 lecture/72 lab total
A course to advance beginning arc welding skills with an emphasis on SMAW. Power sources, electrode identification, weldability of metals, joint design, air arc, and oxyacetylene cutting, and introduction to GTAW and GMAW are covered in this course. Course activities include learning to weld stringer and weave beads, butt and fillet welds in flat, horizontal, vertical, and overhead positions.

WELD 171 INTERMEDIATE ARC WELDING (formerly WELD 171AB) - 3 Units
Advisory: A grade of C or higher in WELD 170 or entry-level trade experience
Note: Students must provide safety glasses and welding gloves, and those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 36 lecture/72 lab total
A course to advance arc welding skills with emphasis on vertical and overhead welding. Course activities prepare the student for weld certification and advanced arc welding classes. Weld symbols, aluminum arc and cast iron welding are covered in this course.

WELD 172 SHEET METAL FABRICATION (RESIDENTIAL AND COMMERCIAL) - 3 Units
Note: Students must provide safety glasses and welding gloves, and those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 36 lecture/72 lab total
This is an introductory-level residential and commercial sheet metal working course. It is intended for the carpentry, welding, aviation mechanics, or metal working job entry-level student who needs to be familiar with sheet metal practices. Course work will include classroom and laboratory instruction in sheet metal equipment, parallel and transition layout and duct construction, duct installations, residential and commercial duct systems and materials as related to heating and cooling systems, flashings and flashing installations.

WELD 173 STRUCTURAL STEEL METAL FABRICATION – 3 Units
Advisory: A grade of C or higher in WELD 70 or WELD 170 or previous welding or fabrication experience
Note: Students must provide safety glasses and welding gloves, and those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 36 lecture/72 lab total
A beginning course in metal fabrication, blueprint reading and sketching, coupled with layout and production welding, and the use of metal fabrication equipment. The class simulates on-the-job welding situations.

WELD 174 STRUCTURAL STEEL MIG WELDING – 3 Units
Note: Students must provide safety glasses and welding gloves, and those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting. Welding is a skill that requires a great deal of hand and eye coordination. Hours of practice are needed to master skills to advance to the next level or become skilled enough for employment.
Class Hours: 36 lecture/72 lab total
GMAW (gas metal arc welding structural steel) stresses certification code welding on plate and structural steel in all positions. Course instruction and related information will include gas metal and flux core arc welding equipment and welding variables, shielding gases, troubleshooting equipment and weld defects, welder certification and welding codes, weld symbols, structural steel identification and welding procedures, and metallurgy.

WELD 175 TIG WELDING - 3 Units
Note: Students must provide safety glasses and welding gloves, and those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting. Welding is a skill that requires a great deal of hand and eye coordination. Hours of practice are needed to master skills to advance to the next level or become skilled enough for employment.
Class Hours: 36 lecture/72 lab total
TIG (Tungsten Inert Gas) is an inert gas welding course also known as Heliarc which covers aluminum, mild steel, stainless steel, magnesium and copper welding. The course consists of welding on flat and pipe stock in all positions. Course content will include metals identification and weld symbols. Welding exercises are stressed to develop welding skills.

WELD 176 GMAW MIG WELDING (LIGHT GAUGE AND NONFERROUS METAL) - 3 Units (P/NP Option)
Note: Students must provide safety glasses and welding gloves, and those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 36 lecture/72 lab total
This course emphasizes developing MIG welding skills on light gauge steel, stainless, and aluminum. Related instruction will include ferrous and non-ferrous metal identification and their welding characteristics, MIG welding applications and variables, inert shielding gases and mixtures, troubleshooting MIG equipment and welds, and spot welding.

WELD 178 PIPE WELDING FUNDAMENTALS - 3 Units
Advisory: A grade of C or higher in WELD 170 or trade welding experience
Note: Students must provide safety glasses and welding gloves, and those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting. Welding is a skill that requires a great deal of hand and eye coordination. Hours of practice are needed to master skills to advance to the next level or become skilled enough for employment.
Class Hours: 36 lecture/72 lab total
A fundamental course in pipe welding with emphasis on open groove pipe joints using oxyacetylene, arc and inert gas welding processes in all positions.

WELD 182 ADVANCED ARC WELDING - 1 Unit
Advisory: A grade of C or higher in WELD 171 or equal trade welding experience
Note: Students must provide safety glasses and welding gloves, and those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting.
Class Hours: 72 lab total
An advanced course designed to prepare students to pass structural steel certification in vertical and overhead positions. SMAW (stick) and FCAW (MIG) processes will be used. The goal of this class is to pass the AWS D1.1 welding certificate test. Strict adherence to the testing procedures will be followed. Completion of the class does not guarantee AWS certification unless welding procedure qualification tests are passed. Note: This course may be repeated one time for a total of two enrollments since the course content varies and skills are enhanced by supervised repetition and practice.

WELD 184 ADVANCED GTAW (TIG) WELDING - 1 Unit
Prerequisite: A grade of C or higher in WELD 175
Note: Students must provide safety glasses and welding gloves, and those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting. Welding is a skill that requires a great deal of hand and eye coordination. Hours of practice are needed to master skills to advance to the next level or become skilled enough for employment.
Class Hours: 72 lab total
An advanced welding laboratory class with emphasis on vertical and overhead welding. This class is designed for the student interested in improving his/her beginning skills in order to prepare for entry into the job force as a TIG welder. Note: This course may be repeated one time for a total of two enrollments since the course content varies and skills are enhanced by supervised repetition and practice.

WELD 186 ADVANCED PIPE WELDING - 2 Units
Prerequisite: A grade of C or higher in WELD 178
Note: Students must provide safety glasses and welding gloves, and those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting. Welding is a skill that requires a great deal of hand and eye coordination. Hours of practice are needed to master skills to advance to the next level or become skilled enough for employment.
Class Hours: 108 lab total
An advanced pipe welding class with emphasis on ASME, AWS, or API certification. Course instruction includes welding codes, pipe classification and identification. Completion of the class does not guarantee certification unless welding procedure qualification tests are passed. Note: This course may be repeated one time for a total of two enrollments since the course content varies and skills are enhanced by supervised repetition and practice.

WELD 188 ADVANCED GMAW (MIG) WELDING - 1 Unit
Prerequisite: A grade of C or higher in WELD 174 or WELD 176
Note: Students must provide safety glasses and welding gloves, and those materials which are of continuing value outside of the classroom setting. This cost will be explained at the first class meeting. Welding is a skill that requires a great deal of hand and eye coordination. Hours of practice are needed to master skills to advance to the next level or become skilled enough for employment.
Class Hours: 72 lab total
An advanced welding laboratory class with emphasis on vertical and overhead welding. This class is designed for the student interested in improving his/her beginning skills in order to prepare for entry into the job force as a GMAW (MIG) welder. Note: This course may be repeated one time for a total of two enrollments since the course content varies and skills are enhanced by supervised repetition and practice.

WELD 197 SPECIAL TOPICS IN WELDING TECHNOLOGY - .5-2 Units (P/NP Option)
Class Hours: 9-36 lecture total
This course is designed to give students an opportunity to explore a variety of topics dealing with changing knowledge in the field of Welding Technology. A different topic will be addressed each time the class is taught and will be listed in the schedule of classes. Recommended for Welding Technology majors; open to anyone with an interest in the topic. Note: This course may be repeated three times for a total of four enrollments.

WORKSITE LEARNING (WSL)

WSL 94 GENERAL WORKSITE LEARNING - 1-3 Units
Limitation on Enrollment: To receive credit a student must complete a minimum of seven units during the semester, and maintain concurrent enrollment in seven units of credit including Worksite Learning. A student can enroll in WSL with no other unit requirements during the summer session. Students must check with the Financial Aid Office for eligibility requirements.
Hours: 75 hours paid or 60 hours non-paid per unit
The General Worksite Learning course allows the student to gain on-the-job experience through employment/volunteerism at an approved job site that is acquired by the student. A faculty member supervises the WSL course to ensure that the work experience is of educational value. The course stresses good work habits and meeting of SCANS competencies through actual on the job performance. This course may be repeated two times for a maximum of 6 units or three total enrollments since course content varies and skills are enhanced by supervised repetition and practice.

ZOOLOGY (ZOOL)

ZOOL 1 GENERAL ZOOLOGY - 4 Units (CAN# BIOL 4) (BIOL SEQ A)
Prerequisite: A grade of C or higher in MATH 102 or Math Placement Level 4 or higher
Class Hours: 36 lecture/108 lab total
The study of the major divisions of the animal kingdom with emphasis on the origin, adaptations, functions, and development.

ZOOL 105 HERPETOLOGY OF SHASTA COUNTY - 1 Unit (P/NP Option)
Note: Field trips are an integral part of the course and are therefore mandatory.
Class Hours: 18 lecture/9 lab (field trip) total
Designed for individuals interested in natural history and field biology by providing the student with a basic awareness of the diversity of amphibians and reptiles that inhabit the local area. Lectures will feature slides, diagrams, maps and other media to present concepts in anatomy, physiology, behavior, systematics and distribution. The students will use various capture techniques and learn to record data and observations in a notebook format while in the field. Moderately rigorous hiking may be involved.

ZOOL 163 ORNITHOLOGY - 1 Unit (P/NP Option)
Class Hours: 18 lecture/16 lab (Four 4-hour field trips required)
Designed for birdwatchers and open to students to fulfill part of the general education requirements in science. Lectures will feature films, slides, records, maps, and other media to present concepts in anatomy, physiology, behavior and distribution. Students will use various field techniques for studying bird populations. Biological science majors should
be aware this course is not transferable as part of their major requirements.

Chapter 7 – Student Rights and Responsibilities

Academic Freedom
Board Policy 4030

Controversial issues and divergent viewpoints have existed among men throughout the history of civilization. Only in a constitutional republic such as ours has a high degree of freedom of expression been permitted. There must be freedom of the student and teacher to present their viewpoints in and out of the classroom. American democracy is strong enough to stand on its own merits and to survive criticism and comparison with any system so long as its advantages and virtues are not deliberately slighted in such comparisons. However, an atmosphere of responsibility to the students, the College, the community and the nation must accompany these freedoms. To carry out their mutual responsibilities to each other and to insure these principles of academic freedom, the Board of Trustees, the administration and faculty agree to support certain guiding principles and procedures as set forth below.

1. The faculty member shall:
   (a) Be entitled to freedom of expression in teaching his/her subjects in the classroom. He/she shall encourage fair examination of controversial questions. He/she shall encourage students, by word and example, to form their own opinions based upon critical judgment and documented facts. In his/her presentation of subject matter to his/her students, he/she shall distinguish between objective facts and his/her personal evaluation of facts.
   (b) Be supported in his/her right to participate in legal political activities of the community, state and nation during off-duty hours. No disciplinary action may be brought to coerce him/her for political purposes. (Education Code 13004, 13754). He/she shall permit no outside political activities to interfere with his/her academic duties. He/she should always make clear to audiences that the opinions expressed regarding outside political activities are his/her own and not to be taken as necessarily representing the policies of the College. He/she should refrain from making irresponsible statements to any group.
   (c) Be ever cognizant that it is illegal to advocate the overthrow of the Government by force (Education Code 9455). He/she should make a clear distinction between the description of such philosophies as might fall in that category and the advocacy of such philosophies.
   (d) Emphasize the need for maintaining a level of individual integrity and responsibility consistent with good community relations of the College, when associated with student activities that reach beyond the classroom.
   (e) Provide a fair platform for the presentation of facts when outside speakers are invited to the classroom on the campus. Such speakers should be free to speak on topics which are relevant to questions being discussed in the classroom or campus situation. It may, at times, be desirable for the faculty members and administration to provide information and viewpoints to rebut opinions expressed by such speakers in order to encourage critical analysis of the questions discussed.
2. Classroom policy regarding the discussion of controversial issues shall be:
   (a) That free classroom expression by the instructor and the students be encouraged so long as topics are pertinent to the course being taught. The instructor is careful to be accurate, responsible and aware of the immaturity of some of the students in presenting and discussing controversial topics.
   (b) That the instructor avoids prejudicial indoctrination. He/she points out to students that there may be other recognized views, and he/she carefully distinguishes between personal opinion and documented fact. He/she avoids imposing his/her opinion regarding controversial topics through the pressure of his/her authority in the classroom.
   (c) That discussion of religious concepts is free from restraint so long as it is an integral part of the subject being taught and does not become sectarian indoctrination.
   (d) That the teacher respects the student's right to differ in opinion in any discussion of controversial issues, without penalty, attack, or reflection in grading.

Academic Honesty

Academic dishonesty is the fraud and deception for the purpose of improving a grade or obtaining course credit, and includes all student behavior intended to gain or provide unearned academic advantage by fraudulent and/or deceptive means.

The student has the full responsibility for the content and integrity of all academic work submitted. Ignorance of a rule does not constitute a basis for waiving the rule or the consequences of that rule. Students unclear about a specific situation should ask their instructors, who will explain what is and is not acceptable in their classes.

Violation of this policy will result in appropriate disciplinary action. Specific examples of academic dishonesty include but are not limited to:

Taking Information

a. Copying graded homework assignments from another student.
b. Working together on a take-home test or homework when not specifically permitted by the instructor.
c. Looking at another student's paper during an examination.
d. Looking at text or notes during an examination when not specifically permitted by the instructor.
e. Accessing another student's computer and using his/her data as one's own.

Providing Information

a. Giving one's work to another to be copied or used in an oral presentation.
b. Giving answers to another student during an examination.
c. After taking an examination, informing a student enrolled in a later course section of questions that appear on the examination.
d. Providing a term paper to another student.
e. Taking an examination, writing a paper, or creating computer data or artistic work for another.

Academic Honesty (continued):

Plagiarism

a. Failing to give credit for ideas, statement of facts, or conclusions derived by another author. Failure to use quotation marks when quoting directly from another, whether it be a paragraph, a sentence, or a part thereof.
b. Submitting a paper acquired from a “research” or term paper service.
c. Copying another person’s assignment and handing it in as one’s own.
d. Giving a speech or oral presentation written by another and claiming it as one’s own work.
e. Claiming credit for artistic work done by someone else, such as a music composition, photos, a painting, drawing, sculpture, or design.
f. Presenting another’s computer data as one’s own.

Other Academic Dishonesty

a. Planning with one or more fellow students to commit any form of academic dishonesty together.
b. Having another student take one’s examination or do one’s computer data or lab experiment.
c. Lying to an instructor to increase a grade.
d. Submitting papers or speeches that are substantially the same for credit in two different courses without prior approval of the instructors involved.
e. Altering a graded work after it has been returned, then submitting the work for re-grading unless specifically allowed by the instructor.
f. Removing tests from the classroom without the approval of the instructor, or stealing tests.
g. Copying computer software from a floppy disk or a hard drive unless specifically allowed by the instructor.

Academic Renewal
Board Policy 4240

A student may petition the Scholastic Standards Committee to have up to 30 units of "D" or "F" grades removed from the computation of his/her grade point average for only a Shasta College Associate in Arts degree and/or admissibility to a campus of the California State College or University System. (Title 5, Sections 55764, 55765). Contact the Admissions and Records Office for petition forms.
Updated 1/16/08

Attendance Policy

Attendance policies at Shasta College are based on the belief that students can profit from college only if they attend regularly and are adequately prepared for their classes.

Students are expected to attend all classes. A student who fails to attend the first class meeting of a course without notifying the instructor may be dropped from the class. In addition, an instructor may drop a student for excessive absences. IT IS ALWAYS THE STUDENT’S RESPONSIBILITY TO OFFICIALLY DROP OR WITHDRAW FROM THE CLASS. Students who fail to file the necessary withdrawal forms, even though they stop attending class or fail to pay registration fees, will be assigned a course grade.

Equal Opportunity

Shasta College employs policies and procedures to strengthen and guarantee the premise of equal opportunity for all. Specifically, the College:

1. Practices nondiscrimination in academic programs, employment, promotion, transfer and assignment on the basis of color, ethnic group identification, race, religion, national origin, gender, sexual orientation, age, physical and mental disability, veteran and/or marital status.
2. Reviews its policies and procedures to preclude the possibility of unintentional discrimination against women, minorities, individuals with disabilities and others.
3. Maintains the policy that unless specifically exempted by statute, every course, course section or class, the average daily attendance of which is to be reported for state aid, whenever offered shall be fully open to enrollment and participation by any person who has been admitted to the college and who meets such prerequisites as may be established pursuant to Chapter II, Div. 2, Part IV, Title 5, of the California Code of Regulations, commencing with Section 51820.

Extenuating Circumstances (Withdrawal)

Students, who must withdraw from college after the fourteenth week of class (75 % of the term for classes less than a full term) because of extenuating circumstances, verifiable cases of accidents/illnesses, or other circumstances beyond the control of the student, may petition the Scholastic Standards Committee for authorized withdrawals from their classes. Petitions are available in the Admissions and Records Office.

Privacy Rights of Students

The Family Educational Rights and Privacy Act (Section 438, Public Law 93-380) requires educational institutions to provide: Access to official education records directly related to the student; an opportunity for a hearing to challenge such records on the grounds that they are inaccurate, misleading, or otherwise inappropriate; that the College must obtain written consent of the student before releasing personally identifiable information about them from records to other than a specified list of persons and agencies; and that these rights extend to present and former students of the College.

1. Education records generally include documents and information related to admission, enrollment in classes, grades, and related information.
2. The Dean of Enrollment Services has been designated "Records Officer" as required by the Act.
3. Education records will be made available for inspection and review during working hours by presently and formerly enrolled students, within 45 days following completion and filing of a request form with the Records Officer.
4. A student may challenge the accuracy of his/her educational records and request that the Records Officer make appropriate corrections. If these informal proceedings do not settle the dispute with the student's records, the student may submit an appeal in writing to the "Designated Officer", the Vice President of Student Services, on forms provided by the office. The "Designated Officer" will then assign the matter within ten (10) school days to a "Hearing Officer," who is the chair of the Scholastic Standards Committee.

Privacy Rights of Students (continued)

5. During the informal proceedings, the Records Officer may make such adjustments or changes not constituting interference of integrity of professional entries. The "Hearing Officer" will set a date for the hearing at the conclusion of which he/she will render a decision to the President of the College who will make the final decision of what action is to be taken.

6. The College may release certain types of "Directory Information" unless the student submits in writing to the "Records Officer" that certain or all such information not be released without his/her consent. "Directory Information" at Shasta College includes: (1) student name and city of residence, (2) participation in recognized activities and sports, (3) dates of attendance, (4) degrees and awards received, and (5) the most recent previous educational agency or institution attended, and height and weight of members of athletic teams which may be released only by the appropriate athletic staff member or the Dean of the area.

   In addition to the above stated "Directory Information," the college may also report student name, address, telephone number, date of birth, level of education, and major to the federal government, including military recruiting agencies in accordance with Public Law 104-208 and 104-206 (Solomon Amendment). Individuals requesting directory information must specify the student's complete name(s) and any other personally identifiable information that will assist the College to identify the student and research the requested information.

7. Student consent is needed for the release of any non-directory information/records covered by the Act to outside parties. For example: prospective employers, except for those agencies entitled to access under the provisions of the Act (for example: campus officials, other schools, federal educational and auditing officials, and requests in connection with the application or receipt of financial aid).

A copy of the College Board Policy 5040 and other pertinent information are available for review and inspection in the Dean of Enrollment Services Office.

Smoking and Tobacco Use Restrictions Board Policy 3555

1. No use of tobacco products is permitted within any college owned and/or leased facility.
2. No use of tobacco products is permitted on the grounds of any college-operated athletic field or facility.
3. No use of tobacco products is permitted in college-owned vehicles.
4. The sale of tobacco products on all college-owned and/or leased property is prohibited.
5. Use of tobacco products on college-owned or leased property is permitted only in special designated areas which are set aside for smoking purposes and are removed from all buildings and major pathways.

Student Equity Policy Board Policy 5300

Shasta College attempts to ensure equal opportunity to all students and shall provide prompt review of any complaints of discrimination based on race, color, religion, sex, handicap, or economic conditions.

Student Standards of Conduct Board Policy 5500

Students and visitors to a Shasta College campus are expected to obey all California State laws and all Federal laws that pertain to behavior on a college campus. The following regulations represent reasonable standards of conduct for students and visitors, and shall be followed at all times on a Shasta College campus. Generally, Shasta College's jurisdiction and discipline shall be limited to conduct that occurs on Shasta College premises or that is related to school activities.

Rules and Regulations: Any student found to have committed the following misconduct is subject to the disciplinary sanctions outlined in Board Policy, Section 3550, 5505, 5510.

1. Acts of dishonesty, including but not limited to the following:
   a. Cheating, plagiarism, or other forms of academic dishonesty. Academic dishonesty is the willful and intentional fraud and deception for the purpose of improving a grade or obtaining course credit, and includes all student behavior by fraudulent and/or deceptive means. The student has the full responsibility for the content and integrity of all academic work submitted.
   b. Furnishing false information to any Shasta College official, faculty member or office.
   c. Forgery, alteration or misuse of any Shasta College document, record or instrument of identification.
   d. Tampering with the election of any Shasta College recognized student organization.
2. Disruption or obstruction of teaching, research, administration, disciplinary proceedings, other Shasta College activities including its public-service functions on or off campus, or other authorized non-Shasta College activities when the act occurs on Shasta College premises.
3. Physical abuse, verbal abuse, threats, intimidation, harassment, coercion and/or conduct which threatens or endangers the health and safety of any person.
4. Attempted or actual theft of and/or damage to property of Shasta College or property of a member of the Shasta College community or other personal or public property.
5. Hazing, defined as an act that endangers the mental or physical health or safety of a student, or which destroys or removes public or private property for the purpose of initiation, admission into, affiliation with or as a condition for continued membership in a group or organization.
6. Failure to comply with direction of Shasta College officials or law enforcement officers acting in the performance of their duties, and/or failure to identify oneself to one of these persons when requested to do so.
7. Unauthorized possession, duplication or use of keys to any Shasta College premises or unauthorized entry to or use of Shasta College premises.
8. Violation of published Shasta College policies, rules or regulations.
9. Violation of federal, state or local law on Shasta College premises or at Shasta College sponsored or supervised activities.

Student Standards of Conduct (continued):

10. Use, possession or distribution of narcotic or other controlled substances except as expressly permitted by law.
11. Public intoxication or use, possession or distribution of alcoholic beverages except as expressly permitted by law and Shasta College regulations.
12. Illegal or unauthorized possession of firearms, explosives, other weapons, or dangerous chemicals on Shasta College premises.
13. Participation in a campus demonstration that disrupts the normal operations of Shasta College and infringes on the rights of other members of the Shasta College community; leading or inciting others to disrupt scheduled and/or normal activities within any campus building or area; intentional obstruction that unreasonably interferes with freedom of movement, either pedestrian or vehicular, on campus.
14. Obstruction of the free flow of pedestrian or vehicular traffic on Shasta College premises or at Shasta College sponsored or supervised functions. The use of bicycles, roller blades and skateboards is not permitted in heavy traffic areas or in buildings.
15. Conduct that is disorderly, lewd or indecent; breach of peace; or aiding, abetting or procuring another person to breach the peace on Shasta College premises or at functions sponsored by or participated in by Shasta College.
16. Theft or other abuse of computer time and network resources, including but not limited to:
    a. Unauthorized entry into a file to use, read or change the contents, or for any other purpose.
    b. Unauthorized transfer of a file.
    c. Unauthorized use of another individual's identification and password.
    d. Unauthorized use of phone and electronic devices such as radios, etc.
    e. Use of computing facilities to interfere with the work of another student, faculty member or Shasta College official.
    f. Use of computing facilities to send obscene or abusive messages.
    g. Use of computing facilities to interfere with normal operations of Shasta College computing systems.
17. Abuse of the judicial system, including but not limited to:
    a. Failure to obey the summons of a Shasta College official.
    b. Falsification, distortion or misrepresentation of information before a hearing officer.
    c. Disruption or interference with the orderly conduct of a judicial proceeding.
    d. Institution of a judicial proceeding knowingly without cause.
    e. Attempting to discourage an individual's proper participation in, or use of, the judicial system.
    f. Attempting to influence the impartiality of a member of a judicial body prior to and/or during the course of the judicial proceeding.
    g. Failure to comply with the sanction(s) imposed under the Student Code.
    h. Influencing or attempting to influence another person to commit an abuse of the judicial system.
18. Willful or persistent smoking in any area where smoking is prohibited by lawful authority (Board Policy, Section 3555)
19. Littering of any kind.
20. Misrepresentation of oneself or of an organization to be an agent of Shasta College.

Student Discipline Sanctions Board Policy 5505

*Refer to the Board Policy for any current updates of language

Sanctions which may be imposed shall include the following:

1. Warning: Notice to the student that continuation or repetition of specified conduct may be cause for other disciplinary action.
2. Censure: Written reprimand for violation of specified regulations.
3. Disciplinary Probation: Exclusion from participation in designated privileges or extracurricular college activities for a specified period of time.
4. Restitution: Reimbursement for damage to or misappropriation of property. Reimbursement may take the form of appropriate service to repair or otherwise compensate for damages.
5. Interim Suspension: In compliance with Education Code Section 76032, students may be suspended from classes and other designated areas for a specified period of time, for the day of the removal and the next class meeting.
6. Suspension: Exclusion from classes and campus property and/or sponsored activities.
7. Expulsion: Permanent termination of student's status without possibility of readmission to the college.

Student Discipline Responsibility Board Policy 5510

*Refer to the Board Policy for any current updates of language

1. Disciplinary Responsibility
   The Dean of Students shall be responsible for administering the Code of Conduct. All violations of the Code shall be reported immediately to the Dean of Students by any person who has knowledge of the commission of any such violations. In the absence of the Dean, any member of the academic staff while conducting a class, conducting a field trip, or supervising a student activity may invoke interim suspension as a sanction to maintain order.

Student Disciplinary Hearings and Review Board Policy 5515

*Refer to the Board Policy for any current updates of language

1. Preliminary Hearing: The Dean of Students will conduct a preliminary hearing to determine the facts of any alleged violation of the Code of Conduct. This hearing shall be carried out within 48 hours or (2) two school days of notification of the alleged violation.
2. Disciplinary Hearing: After the preliminary hearing, the Dean of Students will hold a second hearing within 48 hours or two (2) school days which shall establish the disciplinary action to take place. During this hearing, the Dean will review the evidence compiled in the preliminary hearing and will impose those sanctions that he/she deems appropriate. The Dean will inform the student charged with misconduct the reason for the charge of misconduct together with a description of the sanction imposed. He/she will further inform the student of his/her right to appeal to the appropriate administrator.

Student Disciplinary Hearings and Review (continued):

The Dean of Students shall ensure that the best interests of any student charged with an offense are served, recognizing the student's primary need to sustain academic progress. The Dean may recommend appropriate professional counseling services where the mental or physical health of the student may have been a contributing factor in the misconduct.

3. Appeal Procedure: After being informed in writing by the Dean of Students, it will be the student's responsibility to request in writing a hearing before the appropriate administrator regarding his/her appeal within three (3) school days. If the student does not appeal, the decision of the Dean of Students will be final. If the student elects to appeal, the sanction imposed will be suspended until the time of the hearing.

4. Administrative Review: The appropriate administrator, upon written appeal from the student, will review the findings in the disciplinary action and the sanctions imposed. The appropriate administrator may modify the sanctions as imposed by the Dean of Students.

5. Mandatory Review of Extreme Sanctions: On the recommendation of the District Superintendent/President, the Board may review any disciplinary sanction. When suspension or expulsions are imposed as sanctions, the Board will review all suspensions and recommendations for expulsion.

6. Cooperation with Law Enforcement Agencies: The Dean of Students shall cooperate fully with state and federal law enforcement agencies in the investigation and enforcement of state and federal law within the limitations imposed by statute assuring students of the right to privacy.

Student Grievance Policy
Board Policy 5425

*Refer to the Board Policy for any current updates of language

Definition of Student Grievance
For the purpose of this policy, a student grievance is defined as a claim by a student that his/her student legal rights have been adversely affected by a college decision or action. This policy is available for students who desire to pursue grievance procedures against an employee of the District.

Students may initiate a grievance action in accordance with Administrative Procedures 5425.

The student shall be entitled to representation of his/her choice, other than legal counsel, at all complaint meetings.

Board Approved 1/17/07

Note: This Policy and the related Administrative Procedure is not available for use by any student or applicant for admission who believes that he/she has been subjected to unlawful discrimination. The basis for filing a complaint of unlawful discrimination and the procedures to be used to file such a complaint are set forth in the District's Unlawful Discrimination Policy and Procedures 3430, which can be obtained in the Human Resources Office in the Shasta College Administration Building 100, Room 121, 11555 Old Oregon Trail, Redding, CA 96003 or on the District's web site at:
http://docushare.shastacollege.edu/dscgi/ds.py/Get/File-15354/Administrative_Proceduresрdf.pdf

Student Grievance Procedure
Levels for Resolving a Grievance

FIRST LEVEL – Informal Grievance
Any student with a grievance should first attempt to resolve the matter by means of an informal meeting with the person(s) against whom the student has the grievance. This discussion must take place within ten (10) school days of the alleged incident.

SECOND LEVEL – Informal Grievance
If the grievance cannot be resolved as specified at the first level within ten (10) school days, the grievant should contact the immediate supervisor or Dean of the appropriate department or program. This discussion must take place within ten (10) school days after contact at the second level. The Supervisor or Dean has ten (10) school days to respond to the student's grievance.

THIRD LEVEL – Informal Grievance
If the grievance cannot be resolved at the second level within ten (10) school days, the grievant should contact the appropriate Vice President. The Vice President will review the grievance with the supervisor or administrator and attempt to resolve the grievance informally. This discussion must take place within ten (10) school days after contact at the third level. The appropriate Vice President has ten (10) school days to respond to the student's grievance.

FOURTH LEVEL – Formal Grievance
If the grievance cannot be resolved informally at the third level, the grievant will be asked to state the grievance in writing within ten (10) school days. Then a formal hearing will be scheduled within ten (10) school days of receipt of the written complaint. The employee being grieved shall have the opportunity to respond in writing. A Vice President, as appointed by the President, will conduct the hearing.

The hearing will include the grievant(s) and the person(s) grieved against. Each shall be entitled to: 1) representation of his/her choice, including legal counsel when mutually agreed; 2) the right to present witnesses and evidence; 3) the right to question opposing witnesses. Official minutes of the hearing will be recorded, and, upon request, available to any person party to the hearing. The Vice President as appointed by the President shall have ten (10) school days after the date of the hearing to render a written decision.

FIFTH LEVEL – Formal Grievance
If the grievance cannot be resolved at the fourth level within ten (10) school days, the grievant may seek a review with the college Superintendent/President. A copy of the stated grievance and minutes of the hearing, if any, will be submitted to the Superintendent/ President for review. The Superintendent/President shall have ten (10) school days to render a written decision.

SIXTH LEVEL – Formal Grievance
If the grievance cannot be resolved at the fifth level within ten (10) school days, the grievant may seek a review before the District Board of Trustees at its next regularly scheduled meeting.

Record of Grievance
A record of the grievance may only be entered into an employee's personnel file in compliance with an employee's contract and the disciplinary process.

Student Computer Technology Access

This is to communicate what other users, instructors, and the District expect of students when using college computer technology and facilities. Failure to conform to these stipulations may result in disciplinary action. Violations of regulations in the use of computer technology will be addressed in accordance with Shasta College Standards of Conduct (BP 5500) and Sanctions (BP 5505), available for reference in the College Catalog or by requesting a copy from Student Services.

Access to computing resources is a privilege. Use of any Shasta College computer system constitutes agreement to comply with Shasta College Administrative Procedures for Responsible Computing. Computer technology and facilities are provided for the purpose of completing academic requirements. The District may access, review, copy and disclose information entered or retained in computer technology and communications resources.

A. Students may use the technology and facilities to:

   1. Complete course assignments;
   2. Conduct academic research;
   3. Communicate with faculty and students.

B. User Responsibilities. User responsibilities include, but are not limited to:

   1. Using only their own designated ID, passwords/PIN, and accounts, and keeping IDs, passwords/PIN, and account information confidential. It is recommended that users change their passwords/PIN periodically;

   2. Using software and electronic materials, including shareware, in accordance with copyright, trademark, and licensing agreements and restrictions;

   3. Accurately identifying and representing themselves in electronic messages, files, and transactions;

   4. Saving all work on a flash drive or other removable storage media and not on the hard drive unless instructed to do so by their instructor;

   5. Allowing lab technicians to scan removable media before it is inserted into or otherwise connected to the computer as a precaution to insure the safety of the computers;

   6. Asking appropriate Shasta College personnel for assistance if unfamiliar with the system software.

C. Prohibitions. Prohibitions include, but are not limited to:

   1. Circumventing or attempting to circumvent local, network, or remote security measures;

   2. Unauthorized use of accounts, access codes, passwords, or identification numbers;

   3. Violating copyrights, trademarks, and/or license agreements;

   4. Copying software that has not been placed in the public domain and distributed as freeware; inspecting, changing, altering, copying, or distributing proprietary data programs, files, disks, or software without authorization;

   5. Accessing, using or copying another user's account, ID number, password, electronic files, data, or e-mail without prior authorization; or allowing such use by others;

   6. Falsely identifying and/or representing oneself in the use of computer technology and communications resources.

   7. Altering or attempting to alter system software;

   8. Altering or attempting to alter system hardware without Technology Support approval;

   9. Damaging equipment, data, software, software protection, encryption or restriction on applications and files; including introducing invasive or destructive programs (such as viruses, worms, and Trojan horses);

   10. Modifying or attempting to crash or hack into computer technology or communications resources;

   11. Accessing or attempting to access restricted portions of any operating system or security software;

   12. Installing or removing software;

   13. Using computer technology and/or communications resources for private commercial purposes;

   14. Using District computer technology and communications resources in any unlawful manner including fraudulent, threatening, libelous, obscene, or harassing communications; procuring, or distributing obscene or pornographic material.

Chapter 8 - Services for Students, Special Programs and Student Life

Shasta College provides a broad spectrum of student services and activities to support the instructional program and to ensure maximum opportunity for success in the student's chosen major.

Services for Students

Bookstore

The College Bookstore provides essential products and services that complement the academic environment and facilitate the education process for students, faculty, staff, and alumni as well as to visitors to Shasta College. The Bookstore offers self-service and selection in specialized book departments. Several non-book departments, such as school supplies, food products, emblematic wear, sundries, and gifts are also offered.

The Bookstore is open to the public throughout the school year. The team members of the Bookstore look forward to meeting many of you personally and helping you become better acquainted with the products and services offered. It is our purpose to make your visits to the Bookstore a pleasant and beneficial experience.

During the beginning of each semester the Bookstore has extended hours. Refer to the class schedule, our web page, or please call (530) 242-7574 for more information.

Textbooks can be ordered online at www.shasta.bkstr.com

Career and Transfer Center

As part of the counseling function, Shasta College operates a Career and Transfer Center. Located adjacent to the counseling offices in the Administration Building, the Center is a resource for students and the community to use in making career decisions, acquiring occupational information, and learning about four year colleges and universities. It houses a library of occupational information, computerized career exploration programs, and career interest assessments and college/university catalogs. The Career and Transfer Center also offers workshops on selecting an appropriate transfer college and the process of transfer to UC, CSU, and independent colleges. The center sponsors visits to four-year universities each semester. It also hosts admission advisors from four year institutions who meet with students here at Shasta College. The community and students are invited to make use of the variety of materials and counseling services available. For additional information or an orientation call (530) 242-7570 or drop by Room 125.

Child Care Services

Early Childhood Education
Early Headstart
Headstart-CalWorks Preschool

Shasta College Children's Campus offers several options to help meet the childcare and educational needs of families. The Early Childhood Education Center (530) 242-7600 is a demonstration child development laboratory site providing an enrichment experience for 3, 4, and 5-year old children. A minimum childcare fee is charged and set by the Board of Trustees. Shasta County Head Start and Early Head Start (530) 241-7951 provides an inclusive enriching program with extended day childcare from 7:30 a.m. to 2:30 p.m. Head Start/Early Head Start serves families of infant, toddlers and preschoolers aged eight weeks to five years. Enrollment priority is given to children of College CalWORKs students and low-income eligible families at no fee.

Financial Aid - Scholarships

See Chapter 3 –Finance

Health and Wellness Services

Student Health/Wellness Services is located in the Student Center Building, room 2020. Refer to the schedule of classes for hours. During the Fall and Spring Semesters appointments can be made to see the nurse, family planning services, or the psychological counselor. Besides assisting with minor first aid, health issues, stress management, acute illness, OTC meds, and community referrals, Health/Wellness Services has a multitude of information on lifestyle, nutrition and exercise. For more information on Health Services, please call (530) 242-7580 or visit http://www3.shastacollege.edu/wellness/.

Learning Resource Center

LRC- Library

It's easy to get the needed information at the state-of-the-art College Library. We're no longer just a building with books and magazines. Most resources and many services are available on-line, 7 days per week, 24 hours per day. Explore the vast spectrum of knowledge. The LRC offers the following:

- Millions of magazine articles from 5,000 world-wide publications
- 100,000 books, videos, films, government documents, audiotapes, etc
- 80 computer, video, microform and other workstations, most with ultra-high-speed Internet connections
- Friendly, service-oriented staff to help you get started and deal with any research problem encountered
- Air conditioned study space

LRC – Library (continued)

- Numerous special resources for the physically challenged

Visit the LRC during the hours listed below or anytime via the Internet at: http://library.shastacollege.edu

LRC HOURS:

Monday through Thursday	7:45 a.m. to 8:45 p.m.
Friday	7:45 a.m. to 3:45 p.m.
Saturday/Sunday	Closed

Call 242-7550 for Holiday and Summer hours or check the LRC website.

Student Employment Services

The Student Employment Center is a resource for students seeking work while attending classes at Shasta College, after graduation, or at the completion of their training program. Bulletin boards are maintained in major campus buildings listing current job openings and internship opportunities both on and off campus. Job listings are also posted on the Student Employment website (www3.shastacollege.edu/employment). Computers, printers, fax and phone are provided for job search purposes. Resume, cover letter, interviewing and general job search assistance is available. For more information on student employment services, please stop by Room 124 or call (530) 242-7728.

Transportation

Both private (Shasta College) and public transportation are provided for students attending Shasta College as follows: Shasta College Transportation provides services to Red Bluff, Corning, Los Molinos, and points in between at scheduled stops. Busses arrive and depart from Shasta College's north parking lot, arriving at Shasta College at approximately 8 a.m. and departing 2:00, 4:00 and 4:30 p.m. For further information regarding fees and for confirmation of schedules, call (530) 242-7930.

PUBLIC CARRIERS

Public transportation (The Ride) for the greater Redding area arrives and departs from Shasta College's north parking lot, arriving at Shasta College on the hour and departing five (5) minutes after the hour. The Ride is in operation beginning at 6:30 a.m. to 7:30 p.m., Monday through Friday and from 9:30 a.m. to 7:30 p.m. on Saturday. For further information, call (530) 241-2877

Special Programs

Adult Basic Education

Shasta College has a range of adult education courses. There are courses in reading, math, GED-prep, citizenship and English as a Second Language. Many of these courses are free and have open enrollment. Some courses have small group instruction and others are taught using one-on-one mentoring. These courses can be used to prepare for college entry. For more information contact the Learning Center Coordinator, Basic Skills/ESL, at (530)242-7711.

California Work Opportunity and Responsibility for Kids- CalWORKs

CalWORKs is a federally mandated program designed to assist Families (TANF), formerly AFDC. The goal is to assist these parents in gaining employment by providing vocational training and/or remedial education. Supportive services may include academic counseling, child care assistance, and a work-study program that enables CalWORKs students to meet work activity requirements, gain work experience and earn money that will not impact their grant. Shasta College serves Shasta, Tehama and Trinity students. Shasta College CalWORKs Counselors are available for counseling in locations in each of the three counties. Call (530) 242-7749 for additional information or come by the Shasta College CalWORKS office at the Downtown Mall, 1435 Butte Street, Redding. We're located just across the street from the Shasta County Department of Social Services (DSS) CalWORKs office at 1400 California Street.

Cooperative Agencies Resources for Education - CARE

The CARE Program is designed as a support service for the EOPS student who is at least 18 years of age and a single head of household, a current recipient of TANF/CalWORKs, has a child under 14 years of age, and is enrolled full-time upon admission into the program. Support services provided for CARE students may include assistance with childcare or transportation expenses, supplies, workshops and referrals. The purpose of the program is to assist the CARE student in pursuing educational goals and obtain job/career skills leading to meaningful employment. For additional information, call (530) 242-7540 or visit the EOPS/CARE Office in the Student Center, room 2005.

Disability Service Programs for Students - DSPS

Shasta College offers students with disabilities numerous services including counseling and academic advisement, testing for learning disabilities, readers, tutors, note providers, brailed texts, taped texts, in class interpreting for students who are deaf or hearing impaired, designated parking areas, special equipment, assistive technology, test facilitation, etc. These services, accessed by referral from the DSPS Counselor or Learning Disabilities Specialist, are available to students attending either the main Shasta College campus or the extended education locations throughout the District. The DSPS Counselor and Learning Disability Specialist work with students to evaluate their educational needs and to plan and prescribe suitable programs and services. A specially equipped assistive technology computer lab, located in Room 2004, is available for qualifying students with disabilities. For students with developmental challenges, targeted courses and supports are provided through the Transition Services component of the DSPS. For more information on the various programs and services available through please call (530) 242-7790 or stop by our office room 2007 located in the Student Center.

Extended Opportunity Program and Services - EOPS

EOPS (Extended Opportunity Program and Services) is state-funded and is established at Shasta College to assist students who are low income and educationally disadvantaged with financial and comprehensive support services. The services available to students may include book service awards, EOPS emergency loans, tutoring, academic, personal and career counseling, EOPS transfer assistance, child care assistance, workshops, cultural events and referrals to both on- and off-campus programs. Eligibility for services is determined (under Title 5 regulations) by students filing for a BOGG (Board of Governors Grant) and completing an EOPS application form. For additional information, or for EOPS counseling appointments, call (530) 242-7540 or come to the EOPS/CARE Office in the Student Center, room 2005.

GEAR UP and TRIO Programs

Student Support Services
Talent Search
Upward Bound

Student Support Services is a federally funded TRIO program for eligible full-time students who are preparing to transfer to four-year universities to earn a Bachelor's Degree. TRIO-SSS provides support services (tutoring, counseling, lending library, calculator loans, orientation, and workshops), cultural and social activities, university tours, and transfer assistance. For additional information on SSS or the pre-college GEAR UP and TRIO Programs, please visit room 2070 in the Student Center or call (530) 242-7690.

High School Diploma Program (Formerly GED Program)

Residents of the college District may work toward a high school diploma by taking college courses. Information is available from the high school from which you plan to receive the diploma. You must request that credit is transferred.

A student who transfers Shasta college course credit to a high school for diploma credit may also use that credit at Shasta college. The completed course will fulfill the subject requirement if it is part of an associate degree program.

Questions regarding GED testing should be referred to the Shasta Adult School (530) 245-2626.

Tutorial Services

The Shasta College Writing Center, located upstairs in the Learning Resources (Library) building is a resource for all writers. Students from all courses, as well as community members, are encouraged to make an appointment to work with a tutor in a one-on-one, write to writer tutoring session. The Writing Center also provides computers for word processing and research purposes, and offers workshops and resources for writers. The college also provides tutoring in Math and Science. Please check with Division offices for tutoring services available in various subject matter areas.

UTRAC (Formerly University Express)

University Transfer Readiness and Completion (UTRAC) is a program designed for motivated, academically prepared high school seniors whose primary goal is to transfer to a four-year university or college. There will be opportunities to interact with faculty mentors and visiting presenters. Students apply in February for admission to Shasta College for the following fall. They receive assistance with educational planning which, in most cases, prepares them to transfer within two years. For more information, please ask your high school counselor or call Shasta College at (530) 242-7952.

Veterans Educational Benefits

The Admissions and Records Office serves as your liaison between the school and the Veterans Administration to help you apply for educational benefits. We provide support to help you with your education and information on the latest programs, extension of delimiting dates, vocational rehabilitation, etc. Be sure to apply early. It takes the Veterans Administration approximately 90 days to process the paperwork.

All new veterans to Shasta College should call for information at (530) 242-7662 or visit the Admissions and Records Office.

Student Life

Art

The Art Department sponsors monthly exhibitions in the College Gallery showing visiting artists, faculty, and a juried student show in May. The realm of art is a viable medium at Shasta College, one that fulfills the aspirations and artistic inclinations of each student. For additional information, call (530) 242-7730.

Athletics

Shasta College, a member of the Golden Valley Conference, Northern California Football Conference, the Big-7 Conference, and the Bay Valley Conference, offers a strong and varied athletic program for men and women. The athletic facilities include a gymnasium, a lap swimming pool and a diving pool, lighted tennis courts, weight training room, a cardio exercise room, well-lighted football stadium, all-weather track and field facility, baseball and softball diamonds, and soccer fields. Shasta College men and women participate in baseball, basketball, cross-country, football, golf, soccer, softball, swimming and diving, tennis, track and field, volleyball and wrestling. Questions regarding athletic eligibility should be directed to the Dean of Physical Education and Athletics at (530) 242-7590 or check our website at http://web1.shastacollege.edu/athletics/

Honor Society

Shasta College established the Beta Mu Mu chapter of the Phi Theta Kappa International Honor Society on March 19, 2004. The Phi Theta Kappa's mission is two-fold: 1) recognize and encourage the academic achievement of two-year college students and (2) provide opportunities for individual growth and development through participation in honors, leadership, service and fellowship programming. Honor society members are invited to join by letter and must have a cumulative GPA of 3.4 and have completed 12 or more transferable units, courses numbered 1-99 in the Shasta College catalog. Invitations to join are generally mailed out within the first six weeks of each semester, announcing orientation dates where eligible students can gain more information about the society. Membership is granted once the eligibility requirements have been met and the appropriate dues are collected. For more information, contact - the Dean of Students Office, room 2308 on the main campus for brochures and a membership application, or visit the chapter web site at http://www3.shastacollege.edu/ptk.

Housing

Shasta College maintains two dormitories, one for 60 women and one for 60 men. A commons building providing recreational space and equipment for both indoor and outdoor activities is part of the facility. A full range of social and recreational activities is programmed monthly for the enjoyment of the residents. Students must carry and maintain satisfactory progress in at least 12 units to remain in the dorms.

Students are advised to apply early. Applications must be accompanied by a refundable deposit. A brochure giving information about the dormitories is available from the Admissions and Records Office. For additional information on the Shasta College dormitories phone (530) 242-7740 or (530) 242-7626.

Students receiving financial aid, upon acceptance, must pay any difference between the amount of the grant and actual dormitory contract before entering the dorms.

Meals may be purchased by students in the cafeteria/snack bar during regular school hours. Snacks and soft drinks are available in the Common's building.

Off Campus: The college is interested in its students having suitable housing. For students who cannot be accommodated in the dormitories or who prefer to live off-campus, the Housing Office maintains information on rooms and apartments which are offered for rental to college students.

Music

The Music Department offers a wide range of musical opportunities that include workshops, clinics, guest performers, musicals, and concerts. The Concert Choir, Vocal Jazz Ensemble, String Ensemble, Wind Ensemble, and Jazz/Rock Ensemble perform for many clubs, schools and activities in the area, as well as performing concerts in the Shasta College Theatre. Evening classes offer opportunities to participate in the Community Symphony Orchestra or Community Chorale, Community Concert Band and Community Jazz Big-Band. The department is an active and creative force on campus, and offers the general student a stimulating change-of-pace. For more information, call (530) 242-7730.

Student Clubs

There is a wide choice of special interest and departmental campus clubs for students to join. New clubs form each year. Detailed information on how to organize a new club or how to join an existing one is available in the Dean of Students Office, located in the 2300 building, or by phoning (530) 242-7626.

Student Activity Cards

When you register at Shasta College, you will be offered the opportunity to buy your Student Activity Card from the Shasta College Student Senate. Funds from the card help Student Senate in financing concerts, Spring Activities Week, and Huck Finn Day. The card allows reduced admission to various Student Senate sponsored activities. An activity card may be purchased each semester. Information will be available during registration or at the Student Senate offices located in the Student Center. This card is your passport that will help to involve you in college activities.

Student Newspaper –THE LANCE

The college journalism classes publish a newspaper, The Lance. For more information, contact The Lance office at (530) 242-7729.

Student Senate/Student Government

Since virtually all major decisions that are made on the Shasta College campus affect students in some way, student input is welcomed. The organized "student voice" to the campus community is facilitated through the Student Senate. Student views are represented on councils and committees of the college. The Student Body President is a member of the Board of Trustees. Student concerns are channeled through the Student Senate, which meets weekly. Contact the Dean of Students Office for dates and times at (530) 242-7626.

For the most part the Student Senate focuses its attention in three main areas of concern: student needs and concerns, campus activities and student services.

Shasta College students may participate in the Student Senate. Students are elected and/or appointed to positions in the various levels of the Student Senate. The development of leadership qualities through participation is considered to be of prime importance in the student self-government program at the College.

Theatre Arts

The Theatre Arts Department offers a variety of theory, production and technical theatre classes. The department features two main stage productions each academic year. Auditions are held at the beginning of each term and are open to members of the community. Rehearsals are scheduled during the evenings and on weekends. Technical theatre activities occur daily. Community involvement is very welcome. For additional information, call (530) 242-7730.

Chapter 9 – Academic Staff

ABTS, MARVIN L. (1986) *Anatomy;* B.S., Lewis and Clark College; M.S., Ph.D., Portland State University

ALBRIGHT, JANET (1983) *Associate Dean, Learning Resources;* B.A., M.A., University of California, Los Angeles

ANDERSON, CATHERINE E. (1988) *Mathematics*; B.A., Humboldt State University; M.A., Univ. of Calif. Santa Cruz

ANDREWS, JANE (2005) *Associate Degree Nursing;* M.S., B.S., California State University, Chico

BAILEY, TERRY (1977) *Home Economics*; B.S., California State University, Chico; M.S., Oregon State University

BAKER, LENA (2001) *English/Writing Center;* B.A., Drake Univ., Des Moines, Iowa; M.A., Texas A&M, Kingsville, Texas

BANGHART, S. BRAD (1996) *Dean, EWD;* A.A., Shasta College; A.A., Santa Rosa Jr. College; B.A., California State University, Chico; M.S., Capella University, Minneapolis, MN

BERISSO, CRISTINA (1999) *Math;* Licendiado en Fisica, Universidad Nacional de Buenos Aires; Ph.D., University of Oxford, United Kingdom

BERKOW, PETER F. (1990) *Journalism/English*; B.A., Northeastern Illinois Univ.; M.A., California State Univ., Chico

BITTNER, ROBERT (1991) *Mathematics*; A.S., Linn-Benton Community College; B.S., University of Wisconsin-LaCrosse; M.S., University of Wisconsin- Milwaukee

BLASER, MARK (1996) *Chemistry*; B.A., Carleton College, Northfield, MN; M.S., Univ. of Colorado, Boulder

BODEEN, TOBY (1998) *Counselor*; B.A., M.S., University of Wisconsin, Stout

BOGENER, REBECCA (2003) *Psychological Counselor,* M.A., California State University, Sacramento; B.A., California State University, Chico

BORG, CAROLYN (1990) *Counselor*; B.A., Biola College; M.S., California State University, Long Beach; Ed.D., Oregon State University, Corvallis

BOSWORTH, JOAN (1976) *Dean of Natural Resources, Industry and Public Safety;* B.S., M.A., California State University, Chico

BRAZIL, KELLY (2002) *Head Coach – Women's Volleball/Physical Education*; B.A., California State University, Humboldt

BROOKSHAW, KEITH (1988) *Dean of Students;* A.A., Foothill College; B.A., University of Calif. Davis; M.S., Calif. State University, Hayward; Ed. D., University of Southern California

BYRNE, CANDACE (2002) *English*; B.A., Goucher College, Townson, MD; M.A., California State University, Humboldt; Ph.D., University of Oregon

CALKINS, PAUL (2004) *English*; B.B., University of California, Irvine; M.A., University of California, Berkeley

CICERO, JOHN (1990) *Business*; B.A., University of Rochester; M.B.A., Ph.D., Syracuse University

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COCHRAN, WILLIAM (2007) *Vice President of Academic Affairs*; B.A., U.C. Davis; M.A., California State University, Sacramento; M.S. National University; Ed.D. Brigham Young University

COOPER, WILLIAM D. (1999) *Spanish*; B.A., University of California, Berkeley; M.A., Univ. of Massachusetts, Amherst

CORT, CHARLES (1995) *Dental Hygiene*; A.S., B.S., Oregon Institute of Technology; M.A..T., National University

CRENSHAW, KENDALL (1991) *Counselor*; B.A., Chico; M.A., University of Nevada, Reno

CROES, SCOTT (2007) *Biology; M.A., B.A., California State University, Chico.*

CROOKS, JAMES (2007) *English/Basic Skills;* M.A., B.A., Humboldt State University

CUSHNIE, LOIS (1996) *Counselor*; B.A., Wartburg College; M.A., University of La Verne

DEGNAN, TERESA K., (2000) *Nursing*; B.S.N., Ball State University, Muncie, Indiana; M.S.N., California State University, Long Beach

DEMO, PATRICIA (1990) *Associate Vice President of Human Resources, Equal Employment Opportunity*; B.A., CSU, Chico; M.S., Southern Oregon Univ.

DOHERTY, CHARLES (1994) *Nursing*; B.S., Antioch College; B.S., California State University, Sacramento; M.S., University of Calif., Davis; M.S.N., Calif. State Univ., Chico

DRAGTEN, JEROEN (2000) *Counselor*; B.A., CSU, Chico; M.Ed., University of Phoenix

DUPRE', CINDY M. (1991) *Reading/Remediation*; A.A., Shasta College; B.A., M.A., CSU, Chico

EBEN, DOLLY J. M. (1991) *E.O.P.S. Counselor*; B.A., M.A., Humboldt State University

EBERLE, JOAN E. (1988) *Basic Skills/Reading*; B.S., Kansas State University; M.Ed., Brigham Young Univ.; Ed. D., Univ. of Nevada

ECKHARDT, ANTHONY (2006) *Economics;* B.A., University of New Mexico; M.B.A., National University

EVANS, MATTHEW (2005) *Chemistry;* B.S., California Polytechnic State University

FARD, DIVAN (2000) *Chemistry*; B.S., Pahlavi University; Ph.D., University of Pennsylvania

FISKE, RICHARD A. (1988) *Music*; B.M., B.M. Ed., Oberlin; Conservatory of Music; M.M., Manhattan School of Music; D.Mus., Indiana University, School of Music

FITZHUGH, KELE (2002) *Head Coach – Men's Basketball/Physical Education Instructor*; B.A., California State Univ., Chico

FONG, LEO (2001) *English*; M.A., B.A., U.C. Davis; Univ. of California at Riverside

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FOX, KEVIN (2002) *Mathematics*; B.A., M.A., California State University, Sacramento

FRIGO, LENORE (2002) *Psychology*; B.A., Marquette Univ., Milwaukee; M.A., Ph.D., Louisiana State University

GEE, JULIE (2005) *Vocational Nursing;* B.S., Montana State Univ.

GENTRY, DAVID (2006) *Art;* M.A., California College of Art; B.A., University of Illinois

GERARD, ROGER (2001) *Hospitality Management;* M.A., Northern Arizona University, Arizona

GESSNER, KATHRYN H. (1999) *English*; B.A., University of Delaware, Newark; M.F.A., University of Arkansas, Fayetteville

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GOODMAN, DEBORAH (1997) *Nurse*; B.S.N., California State University, Chico; School Health Credential, MS(c) California State University, Sacramento

GOOGINS, ROBERT P. (1981) *Business Education*; A.A., College of the Siskiyous; B.S., Sacramento State University; M.S., Southern Oregon

GORDEN, STANLEY (1997) *Environmental Resources Technologies Agriculture*; B.S., CSU, Chico; A.A., Shasta College

GORDON, SCOTT (1999) *Dean of Business, Technology , Family and Consumer Sciences*; M.B.A., Brigham Young University

GOTTLIEB, CLIFFORD (1984) *Chemistry*; B.S. University of Wisconsin; M.S., University of California, Davis

GRANDY, LARRY (1978) *Music*; A.A., Diablo Valley College; B.A., M.A., California State Univ., Chico; D.M.A., Arizona State Univ.

HAAS, LORRAINE (2002) *Early Childhood Education*; B.A., M.A., California State University, Sonoma

HAMAR, DIANA (2000) *DSPS Counselor*; A.A., Shasta College; B.A. Simpson College; M.A., University of San Francisco

HAMILTON SLANE, SANDRA (2007) *Director of DSPS,* B.A., Wheaton College, M.A., University of Illinois

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HANSEN, STEVEN D. (1974) *Agriculture/Physiology*; B.S., Fresno State University; M.S., University of California, Davis

HARPER, JOHN (1986) *Art*; B.A., M.A., San Jose State Univ.

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HORTON, JAMES (1973) *Philosophy*; B.A., Seattle Pacific College; B.D., Southern Methodist University; Rel.D., School of Theology at Claremont

HOUSER, GARY (1999) *Dean of Physical Education and Athletics;* B.S., M.S. Ed., Oregon State University, Corvallis, Oregon

JIMINEZ, EVA (2007) *Business;* M.A., B.A., California State University, Sacramento

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KEATING, JAMES F. (1989) *Physical Education*; B.A., Jamestown College; M.Ed., University of North Dakota

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KENNEDY, SHARON (1991) *Counselor*; B.S., Calif. State University, Fresno; M.S., San Francisco State University

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LARSON, JAIME (1996) *Mathematics*; A.A., Porterville College; B.A., California State University, Chico; M.A., California State University, Fresno

LEDFORD, CATHE (2000) *Nursing*; B.A., M.S., California State University, Long Beach

LEWIS, GARY (1977) *Superintendent/President*; B.S., M.B.A., Arizona State University

LIGHTFOOT, ROBB P. (1990) *Communication Arts*; A.A., Bakersfield College; B.A., Calif. State College, Bakersfield; M.A., Calif. State College, Northridge

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LIVINGSTON, JOHN (2006) *Equipment Operations*; A.A., Shasta College; B.S., M.S., Cal Polytechnic State University

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MACMILLAN, TEAL (1999) *History*; B.A., M.A., California State University, Chico

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MARSH, JANIS K. (2000) *Project Director, TRIO & Gear Up;* B.S., University of Southern California; M.S., Univ. of La Verne, Ed.D., Univ. of Southern California

MARTIN, ERIN (2005) *Biology;* Ph.D., Oregon State University; B.S., Boise State University

MASULIS, THOMAS C. (1991) *Physics/Mathematics*; B.S., University of Illinois; M.A., University of California, Berkeley

MATHESON, JIMMY (1975) *Auto Mechanics/Auto Machinist*; A.A., Shasta College; Teacher Training, University of California, Berkeley

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MEACHAM, SUSAN (1998) *Microbiology*; A.S., Grossmont College; B.A., Point Loma College; M.S., Loma Linda Univ.

MELINE, DOUG (2001) *Associate Vice President, Information Services & Technology*; A.A. Shasta College; B.S., U.C. Berkeley; M.B.A., San Francisco State University

MILHOUS, DOUGLAS (1998) *MIS/Business;* B.S., Humboldt State University; M.S., California State University, Chico

MOREHOUSE, THOMAS (2001) *Counseling*; B.S., M.A., California State University, Fresno

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NOLTE, KENNETH (2002) *Natural Resources*; B.S., University of Wisconsin; M.S., Texas A&M University

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ORR II, THOMAS (2005) *Dean of Extended Education;* B.A., M. A., California State University, Bakersfield

ORTEGA, LUZ MARIA "LUCHA" (2005) *Vice President of Student Services*; A.A. West Valley College; B.A. University of Santa Clara; M.A., Harvard University; Ed.D., University of La Verne

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ROSS, RALEIGH (1997) *Automotive Technology*; B.A., California State University, Chico; A.A., Sierra College

RUPE, CAROL (1969) *Home Economics*; B.S., University of California, Davis; M.S., Oregon State University

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SCHIMKE, SUSAN M. (1990) *Art*; B.F.A., University of Wisconsin; M.F.A., Ohio State University

SCHMITT, LEW F. (1990) *Management Information*; A.A., Grossmont College; B.B.A., M.B.A., National University

SCOLLON, DANIEL (1996) *Natural Res./Environmental Technology*; B.S., California Polytechnic University, San Luis Obispo; M.A., San Francisco State University

SITTIG, ANN (2005) *Spanish;* B.A., University of Nebraska; M.A., San Francisco State University; Ph.D, Universidad Autonoma de Madrid, Spain

SIVADAS, IRAJA (2007) *Mathematics;* M.A., B.A., University of California, Santa Cruz

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SMITH, EILEEN L. (1985) *English*; B.S., Georgetown University; M.A., Ph.D., University of California, Davis

SMITH, MARK (1992) *Welding*; A.A., Cerritos College; B.A., California State University, Fullerton

SNOW, TERRIE (1981) *Associate Degree Nursing*; A.D.N. Lansing (MI) Community College; B.S.N., M.S.N., Indiana University, Indianapolis

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STAINBROOK, VERNON (1985) *Carpentry/Woodworking*; A.A., Shasta College

STEPHENS, MAUREEN (1981) *Head Librarian*; A.A., Shasta College; A.B., Occidental College; M.A., Univ. of Southern California

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TATE, JAMES (2007) *Archaeology/Anthropology,* B.A. Old Dominion University, M.A. Northern Arizona University, Ph.D. University of California, Santa Barbara

TELLO, JUAN RAMON (2001) *Philosophy*; B.A., M.A., Ph.D., University of California at Santa Barbara

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VALVATNE, LAURA (1992) *Psychology*; B.A., San Francisco State University; M.A., Western Michigan University; Ph.D., Union Institute of Cincinnati

WAITE, LEIMONE (1998) *Horticulture*; B.S., UC, Davis; M.S., California Polytechnic State University, San Luis Obispo

WATERBURY, ELIZABETH (1999) *Choral-Vocal Music;* B.A., San Jose State University; M.M., San Francisco Conservatory of Music; Ph.D., UC, Santa Barbara

WESTLER, SUSAN (1993) *Nursing*; B.S.N., Calif. State University, Sacramento; M.S.N., CSU, Chico

WRIGHT, G. DAVID (1987) *Administration of Justice*; A.A., Shasta College; B.A., California State University, Chico

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WYSE, JOE, (2007) *Vice President of Administrative Services*; B.A., Kenyon College, Ohio; M.A., Trinity International Univ.

Shasta College Emeritus Association

For more information on the Emeritus Association, please visit our website at: **www.shastacollege.edu/emeritus.htm**

Emeritus Faculty

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Eve-Marie Arce
Dorothy Arel
Dan Axtman
John Bertrand
Donald Bertucci
Anita Berwind
Norma Bross
Bill Burrows
Dave Bush
Phyllis Caine
Jean Carpenter
J. Scott Carter
Leo Chiantelli
Ed Clewett
Stephen Concklin
Claire Cooksley
Ken Cooney
Steve Cragg
Lorraine Cresto
Richard Dalrymple
Dorothy Davis
Leon Donohue
David Dubose
Leighton Edelman
Ross Fetters
Jack Finch
William Fitzgerald
James Ford
James Gilbertie
Lynn Giovannoni
Allan Hansen
Kathleen Hansen
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Dean Hinshaw
Merrill Hugo
Sandra Johnson
John Jurivich
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Joe Scherrei
Dianne Schweigert
Holly Scrivner
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Kenneth Tinkler
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Emeritus Staff

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Cheryl Flowers
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Susan Schnee
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June White
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Emeritus Administration

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William Justice
George Kutras
Lloyd Livingston
Edward Neroda
James Poulsen
Cassandra Ryan
Don Spellman
Jim Taylor

Glossary of College Terms

A.A., Associate in Arts Degree – Liberal arts degree, designed for transfer.

Academic Renewal - A means whereby a student may petition to have previous college work (grades and credits) excluded from current grade point average, if that work is more than two years old and is not reflective of the student's present level of ability or performance.

Academic Year - The regular terms of instruction not including summer session. Fall and Spring Semesters.

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.

A.S., Associate in Science Degree - degree awarded for technical and occupational programs, and transfer science programs.

ASB - Associated Student Body of Shasta College. All Shasta College students are members of the ASB and are represented by an elected and appointed student government called the ASB Council.

Baccalaureate - Refers to the baccalaureate or bachelor's degree usually achieved after four years of undergraduate college study. Shasta College offers the first two years of baccalaureate work in many fields of study.

Certificate of Achievement - Indicates completion of a specific occupational program of study and training.

Class Load - The number of class units a student takes in any given term. A full time class load is twelve or more units. A standard class load is fifteen units.

Clear Standing - Indicates that a student's grade point average in the previous semester and cumulative grade point average are C (2.0) or better.

Continuing Student - A student who was enrolled at Shasta College during the most recent previous semester.

Coop Ed - Cooperative Education - a program of college credit for work experience combined with college study.

Corequisite - A condition of enrollment consisting of a course that a student is required to simultaneously take in order to enroll in another course.

Credit - A completed and passed unit of study recorded on the student's official college record.

CSU - California State University System. Of the twenty-three state colleges and universities, the two closest to Shasta College are CSU Chico and CSU Humboldt.

Curriculum - (plural, curricula) often called “discipline.” All the courses of study offered by Shasta College. May also refer to a particular course of study (major) and the courses in that area.

Dismissal - A status caused by low academic or progress performance. The dismissed student may not continue at Shasta College without approval for readmission. See catalog section on Academic Regulations.

District - The area served by Shasta College is the Shasta-Tehama-Trinity Joint Community College District. The District is the governing entity of the College.

Drop/Add - Revision of program of courses when a student wants to drop, change, or add a course.

DSPS – Disability Service Programs for Students – Program providing both physical and educational accommodations to eligible students with disabilities.

Elective - Any course not required for a major field or General Education requirements.

Enrollment - Official recorded placement of a student in a class.

EOPS - Extended Opportunity Programs and Services - Special support services, financial assistance, and educational programs that assist students who have experienced economic and educational disadvantages.

Full-time Student - A student taking twelve or more class units in a regular semester.

G.P.A. - Grade Point Average. The G.P.A. is compounded based on points for each grade received. Per unit an "A" grade is worth 4 points, a "B" worth 3, a "C" worth 2, a "D" worth 1, and an "F" worth 0. The total number of points accumulated is divided by the number of course units taken for a letter grade. Credit (CR), No Credit (NC), or Incomplete (I) grades are not computed in the grade-point average. Current G.P.A. is for the most recent semester. Cumulative G.P.A. is for all College work to date.

General Education Certification - Transfer courses certified by Shasta College for meeting General Education requirements at the California State Universities.

IGETC – Intersegmental General Education Transfer Curriculum. A pattern of general education courses which is transferable to both the UC and CSU systems.

Independent Study – Independent study provides a forum for advanced work in a given field of study.

Major - Area or field of concentration for occupational certificate or associate degree.

Matriculation – Matriculation is a process which brings Shasta College into an agreement with a student for the purpose of realizing that student’s educational objectives. The process includes Application, Records, Assessment Testing, Counseling, and Orientation

Nonresident - A person who has not lived continuously in California for one full year prior to enrollment.

Part-time Student - Any student enrolled in less than 12 units of course work.

Pell Grant - A federal financial aid grant available to qualified students that are enrolled in six or more units.

Petition - A request, usually written on a standard form, to adjust a study list or curriculum to fit an individual situation and/or request exception to a policy or regulation.

Prerequisite - A condition for enrollment in a course or a major. Prerequisites for courses usually consist of a previous course or courses in a related subject and/or the instructor's permission. Prerequisites are described in the Catalog course descriptions and indicated in the schedule of classes with an asterisk "*" following the course number.

Probation - An indication that performance is below standard because of academic or progress deficiencies; a trial period in which a student is permitted to redeem failing grades or deficient units.

Registration - The process of providing required information and enrolling in classes each semester.

Resident - A person who has resided in California for one full year prior to enrollment and who meets other residency requirements.

Returning Student - A student who has previously attended Shasta College but did not enroll during the most recent previous term.

Semester - A subdivision of the academic year into two semesters, usually Fall and Spring, each lasting approximately eighteen weeks. To convert semester units to quarter units, multiply by 3/2. To convert quarter units to semester units multiply by 2/3.

Student Educational Plan - A process that helps the student select a specific educational goal, describes the responsibilities of the student in reaching that goal, and states in written form the courses, programs and services required to achieve that goal. Required for financial aid and veteran students.

T.B.A. - To Be Announced or Arranged is noted in the Schedule of Classes when the instructor, room, or time of a course was not known at the time of schedule printing. If the class has no specified hours, the student should contact the instructor to arrange the hours.

Transcript - Official copy of a student's academic record (courses and grades).

Unit - Courses are assigned a unit value based on one unit of credit for every hour of lecture or 3 hours of laboratory time per week by the student. A student's progress in the college is determined in part by the number of units completed.

UC - University of California – The nearest UC to Shasta College is located at Davis.

University Center – A partnership between Shasta College and several regional universities to bring four-year Bachelor's degree programs to our District.

Work Study - Usually refers to "College Work Study," a program of federal aid that provides funds for student jobs on campus.

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